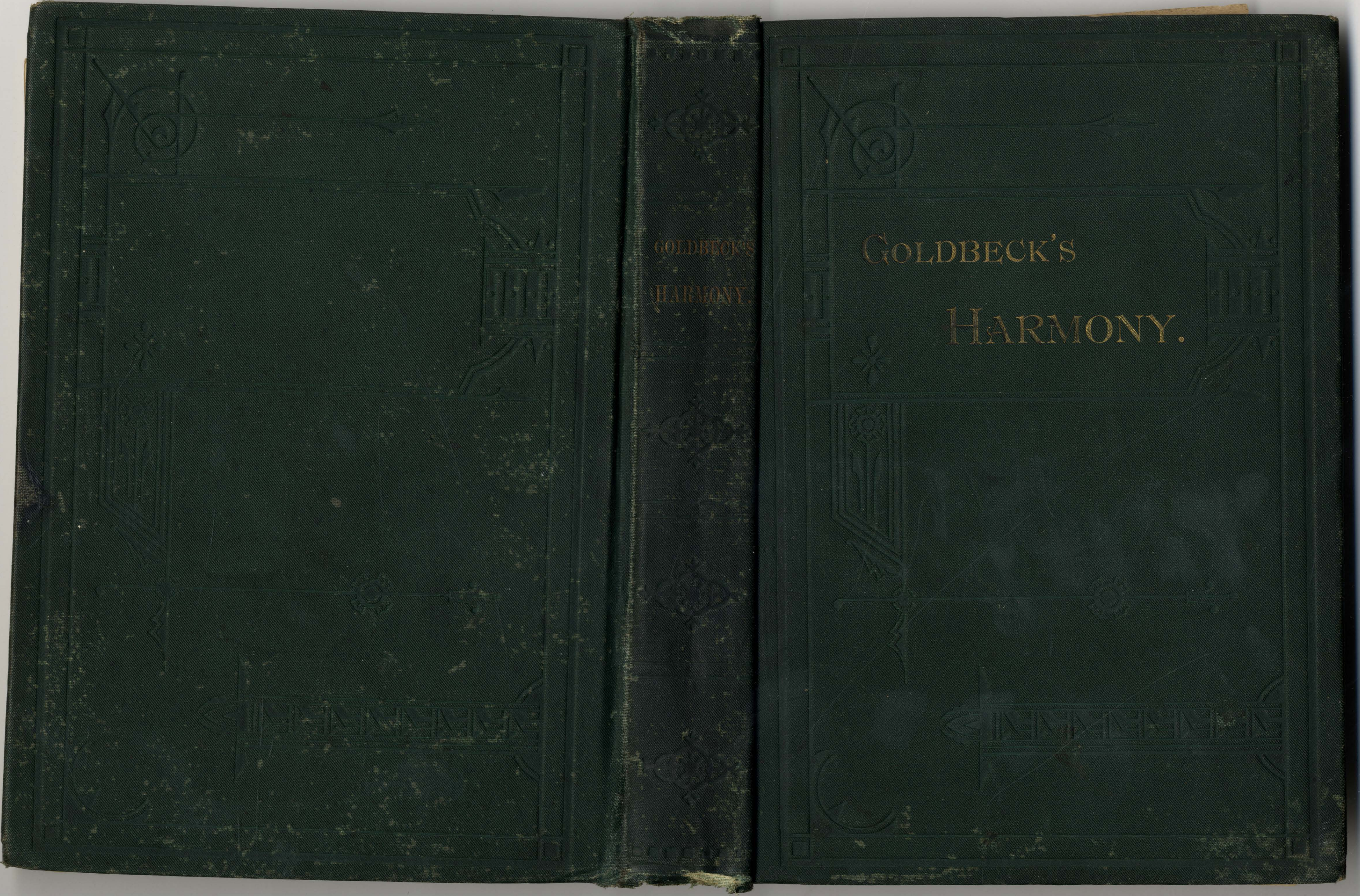

GOLDBECK'S
HARMONY.

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HARMONY.

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THE

Art and Science of Music

IN THREE PARTS

FOLLOWED BY

THE MUSICAL SCIENCE PRIMER

IN FIFTY-THREE LESSONS,

BY

ROBERT GOLDBECK.

WITH INDEX.

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Preface to Harmony.

In offering this book to the musical world, the author expresses the hope that it may in some degree contribute to make the difficult science of Harmony more accessible to the student. The method pursued has not been to build up a set of rules, or a system which shall be perfect in itself on merely theoretical grounds, but rather one to develop in the student a correct judgment and a delicate sensibility for what is beautiful and logical in Music.

The rules of Harmony do not admit of literal and uniform interpretation and application, from the simple reason that in Music several sounds are heard at once, and that they must be considered in their two- or threefold scientific bearing upon each other. Thus several rules (frequently opposites) come into play at the same moment, and one must, of necessity, be sacrificed for the benefit of another of greater importance for the time being. To advocate rigid rules under such circumstances would not only be wrong in principle and confusing to the mind, but impossible.

In studying the art and science of Music, it is important that a good beginning should be made. The first principles, together with the technical rudiments, should be thoroughly learned and understood before approaching the higher branches of Harmony and Composition. The author has endeavored, in the Primer, to explain the elements in all their minutiae. Professionals and amateurs are too much given to-day to make a sensational pastime of the most emotional of arts, while the deeper, fruit-bearing study, is neglected.

It is a drawback to the better advancement of Music, that because of its external charms, it is so easily made to swerve from its true path. Whenever this takes place, its influence upon the morality and elevation of man ceases. It, therefore, behooves the logical musician to study seriously, and urge, whenever he can do so with some hope of response, a better musical education. That this work may facilitate the attainment of so worthy an object, is the fervent hope of

The Author.

The Art and Science of Music.

PART I.

PREPARATORY TO THE STUDY OF HARMONY.

Music.

§ 1. Music consists of Melody and Harmony, and is regulated and varied in its progress by Time (measure) and Rhythm.

Melody.

§ 2. Melody is a Succession of Tones.

Harmony.

§ 3. Harmony is a Combination of Tones.

Sound and Tone.

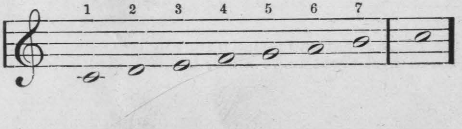
§ 4. The words Sound and Tone are distinguished from each other: the word sound being employed as a general term, that of Tone for Sound of definite pitch.

The Seven Tones.

§ 5. The Seven Tones, as they succeed each other in the common scale from any given tone to the approach of the octave above, form the foundation of our system of music, as it has been in use for the last three centuries, and is known under the name of Modern System of Music.

Note.— The reader knows that the scale contains seven *different* tones, and that the eighth, or octave, which is always added to bring the succession of the Seven Tones to a melodious close, is merely a repetition of the tone from which we started. It serves to terminate the scale, and may also serve as the starting point of the next higher scale.

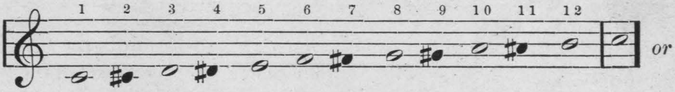
Example 1.



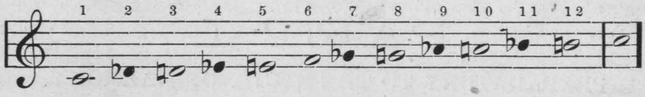
The Scales.

§ 6. There are twelve scales, called the Major Scales, and twelve accessory scales, called the Minor Scales. These scales are based upon the seven tones above described and their five intermediate semi-tones, furnishing in all twelve scales, which may be either major or minor:

Ex. 2.



Ex. 3.

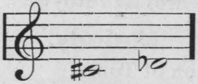


Theoretically the number of scales exceeds the number of twelve, because (as we perceive from the two examples above) the same tone may have different names.

NOTE.—Two tones of the same pitch, but different in name, are called enharmonic tones; when they are sounded in succession, an "enharmonic change" takes place.

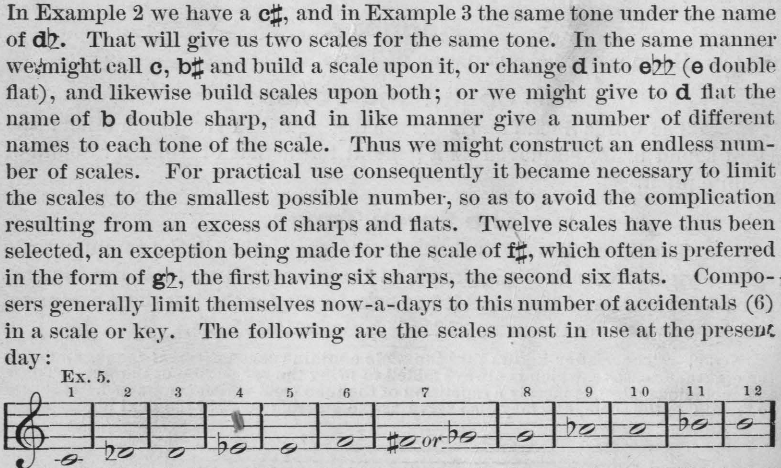
Enharmonic Tones.

Ex. 4.



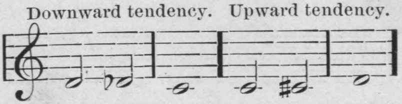
In Example 2 we have a **c♯**, and in Example 3 the same tone under the name of **d♭**. That will give us two scales for the same tone. In the same manner we might call **c**, **b♯** and build a scale upon it, or change **d** into **e♭♭** (**e** double flat), and likewise build scales upon both; or we might give to **d** flat the name of **b** double sharp, and in like manner give a number of different names to each tone of the scale. Thus we might construct an endless number of scales. For practical use consequently it became necessary to limit the scales to the smallest possible number, so as to avoid the complication resulting from an excess of sharps and flats. Twelve scales have thus been selected, an exception being made for the scale of **f♯**, which often is preferred in the form of **g♭**, the first having six sharps, the second six flats. Composers generally limit themselves now-a-days to this number of accidentals (6) in a scale or key. The following are the scales most in use at the present day:

Ex. 5.



NOTE.—Upon the Piano **d** flat and **c** sharp (or any two tones of the same pitch, but of different name) seem at first sight to be alike, but they are nevertheless neither practically nor theoretically the same. Practically the difference lies in the tendency of the tone acquired through association with other tones. D flat has a tendency to move to **c**, **c** sharp to **d**. Theoretically they differ slightly in their number of vibrations:

Ex. 6.

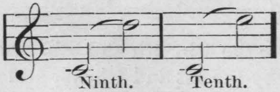


We repeat here that the established science of music limits the number of major scales to twelve. The twelve minor scales are formed from the twelve major scales. The particular order in which the seven tones of the major scale succeed each other is, as intimated above, the same in all the twelve major scales. The same is true of the minor scales among each other. The entire system of music rests upon (or is in germ within) the major scale, the minor scale being merely an alteration of the former. It is important therefore, that we should closely consider the manner in which the seven tones succeed each other in the major scale.

The Major Scale in C.

§ 7. We will, according to custom, take **c** as the central or fundamental scale, represented upon the piano by the white keys. and, touching these one after another, we shall obtain the succession $\overset{1}{\mathbf{c}}\ \overset{2}{\mathbf{d}}\ \overset{3}{\mathbf{e}}\ \overset{4}{\mathbf{f}}\ \overset{5}{\mathbf{g}}\ \overset{6}{\mathbf{a}}\ \overset{7}{\mathbf{b}}\ \overset{8}{(\mathbf{c})}$. Between each of these seven tones there is a certain distance, or interval. The English word Interval has been adopted as a technical term in music, and we speak of **c d** as an interval of the second, **c e** an interval of the third, etc., etc. The scale has seven such intervals, namely, **c d**, the second; **c e**, the third; **c f**, the fourth; **c g**, the fifth; **c a**, the sixth; **c b**, the seventh, and **c** to **c** above, the eighth or octave. The eighth tone **c** is added, an octave above the starting point **c**, to end the scale in a satisfactory manner. Of this more hereafter. There are still further extended intervals in use, such as the ninth, tenth, etc., formed by the tone **c** (from which we first started), and the octave above its second, third, etc., but these will not occupy us at present.

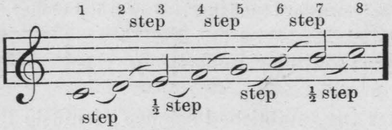
Ex. 7.



Intervals.

§. 8. There are whole tones and semi-tones; perhaps better called steps and half steps when using them to measure distances or intervals. The half step or semi-tone, as the smallest interval in music, affords a convenient measure for that purpose. The major scale consists entirely of a succession of steps and half steps (whole tones and semi-tones), in the following order:

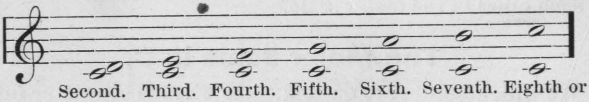
Ex. 8.



The intervals of the scale, formed by steps and half steps, are also called large and small seconds. To define it more clearly, we speak of steps and half steps (whole tones and semi- or half tones) as a *measure* for larger tone distances, and of seconds, thirds, fourths, fifths, sixths, sevenths, eighths or octaves, etc., as *intervals.*

We may now give the intervals formed by the first tone of the scale, **c**, and the remaining ones, successively:

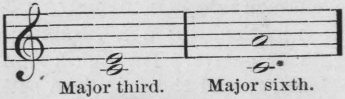
Ex. 9.



Different Kinds of Intervals.

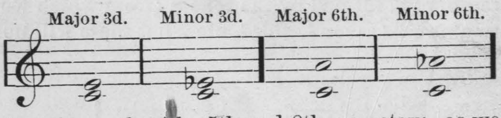
§ 9. There are major and minor, perfect, large and small, diminished and augmented intervals. The major intervals are the Third and Sixth as we find them in the major scale, formed by the first and third. and first and sixth tones:

Ex. 10.



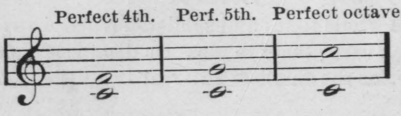
These are changed into minor intervals through reduction by half a step:

Ex. 11.



The Perfect Intervals are the 4th, 5th and 8th, or octave, as we find them in the major scale formed by the 1st and 4th, 1st and 5th tones, and the 1st tone and its octave above.

Ex. 12.

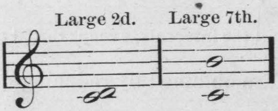


These intervals remain unaltered when occurring in minor harmonies; they do not therefore assist in the change from the major to the minor mode, and require a separate name to distinguish their kind, otherwise they might have been enrolled among the major intervals. The fact is that these intervals, while they are not inharmonious, are *empty* of Harmony, and the addition of a major or minor third is required to make them positively harmonious. Some writers do not favor the term "perfect", which has been given to them, but the objection is not well sustained, since as a merely technical term the word "perfect" is as good as any other. Other writers again classify the perfect under the major intervals, thereby producing much confusion.

NOTE.—When a perfect interval undergoes a change, it does not become minor, but diminished or augmented (extreme), according to contraction or expansion.

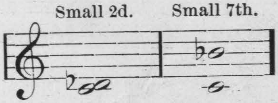
The large intervals are the 2d and 7th, as we find them in the fundamental major scale:

Ex. 13.



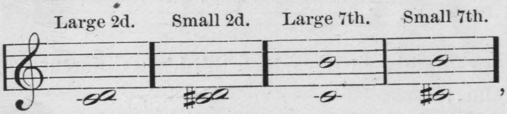
These are made "small" by reducing the distance that separates their constituent tones, by half a step:

Ex. 14.



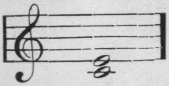
Any of these intervals could also be altered from below, for example:

Ex. 15.



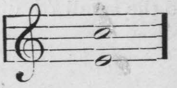
but it is not costumary to do this in the explanation of musical theory. The bass or lowest part is left untouched as a foundation upon which we build. In a like manner, when we name an interval or a chord, we enumerate their component parts from below, thus:

Ex. 16.



is c e, not e c, for e c is:

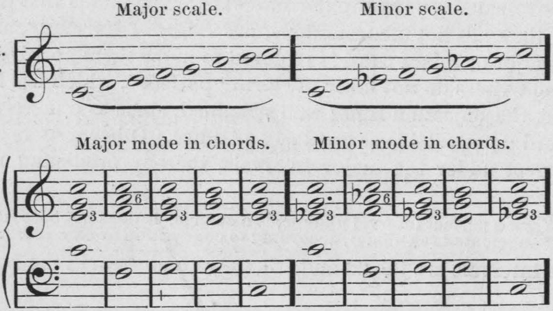
Ex. 17.



This short explanation will suffice to make our meaning clear in similar cases hereafter.

NOTE.—The second and seventh are likewise classed among the major intervals by some writers. They state, that all the intervals formed by the first tone of the scale and the remaining ones successively, are major, and claim that in this view a more consistent system is established. The author repeats, that only such intervals are major as participate in the change from the major to the minor mode. These are clearly the 3d and 6th alone. The other intervals, namely the 2d, 4th, 5th, 7th and octave, remain unaltered.

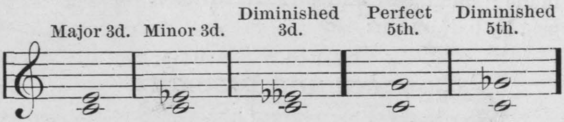
Ex. 18.



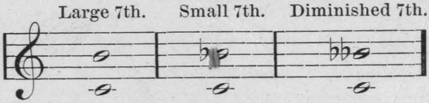
It will be perceived that all the intervals, except the 3d and 6th, remain unaltered in the change from major to minor.

Diminished Intervals are obtained by reducing perfect, minor and small intervals by half a step:

Ex. 19.

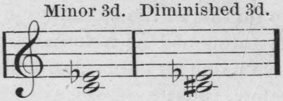


Ex. 20.



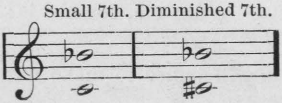
We might have diminished the minor third in a different way from that in Example 19, thus:

Ex. 21.



and the small 7th differently in Example 20, thus:

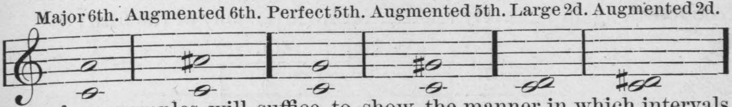
Ex. 22.



but we preferred not to alter the foundation of the intervals. (See § 9, Example 15.)

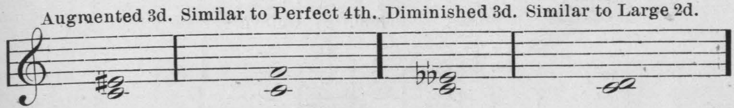
Augmented Intervals are obtained by raising major, perfect or large intervals by half a step:

Ex. 23.



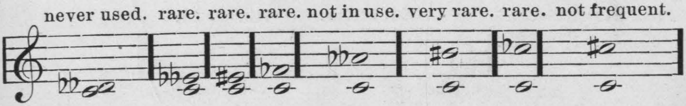
These few examples will suffice to show the manner in which intervals are diminished and augmented. It often occurs that intervals thus altered become similar to other intervals:

Ex. 24.



Such augmented or diminished intervals are not in use, or occur rarely. Of such we give some further examples:

Ex. 25.

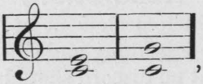


Concord and Discord.

§ 10. Also called Consonance and Dissonance. These two contrasted combinations are the two organic principles in that division of music called Harmony. Concord is followed by discord, and this again is resolved into concord.

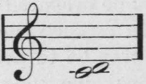
Concord, musically speaking, finds its elementary expression in the third and fifth:

Ex. 26.



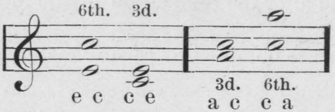
discord in the second:

Ex. 27.



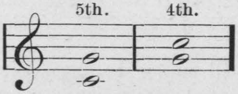
All other consonant or dissonant combinations are but derivations of these three. The concord of the sixth, for instance, is but another form (inversion) of the third:

Ex. 28



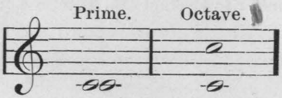
The fourth again is merely another form (inversion) of the fifth:

Ex. 29.



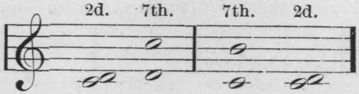
The octave is a further removed unison of the prime (unison upon the same degree). (See Inversion of Intervals, § 19.):

Ex. 30.



There are two principal discords, the second and the seventh, although the seventh again is but another form of the second;

Ex. 31.



We may say, that there are in Harmony, musically and artistically speaking, three combinations of so many contrasted effects, representing the elementary powers of concord and discord: 1st, the third, as the basis of all Harmony; 2d, the fifth, as a consonant combination, but empty of harmony; 3d, the second as the representative of discord. The art of composition primarily consists in effecting a proper succession of the elements: Concord and Discord.

Resolution.

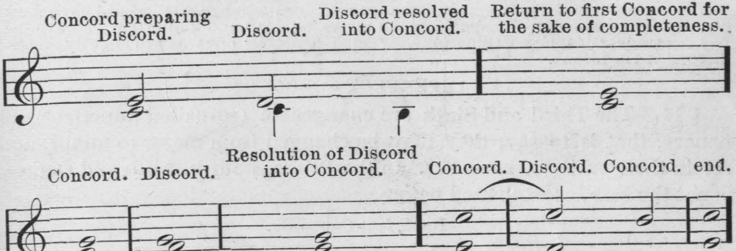
§ 11. Concord is the principal element of these two, and therefore furnishes in nearly all cases the beginning and end of a composition. It was a rule among older writers that no discord should appear unprepared, in other words, that every discord should be prepared by a concord. Modern writers often disregard this rule, but in essence the law remains the same, in as much as the aim of all art will ever be to produce the beautiful and avoid that which is harsh and offensive. To concord, as the principal element, allies itself the subordinate power, discord. The discord cannot exist without the concord. The concord may exist without the discord. Hence when we attain a discord in music, we must soon return to a concord. This return from a discord to a concord is called a Resolution (a resolving or dissolving of one combination into another). Science deduces from this the law that

"Every Discord must be resolved into a Concord."

When the art of music was in a less advanced state of development than at the present day, the concord predominated largely in composition, but as the ear became tired of *too much sweetness* of Harmony, the discord asserted its empire more and more, until to-day originality and inventive power are compelled to explore the depths of dissonant combinations to produce something new. The highest genius ever leads the advance, creating it its own natural irrestible way; talent and ingenuity are apt to make a point of extraordinary discordant combinations, so as to make up by high-wrought penetrating force what is lacking in creative power. The discord has a great charm, and may be likened to the desire of attaining some loved object, but the *greatest* charm resides in the *Resolution* of discord into concord, corresponding to the *attainment* of the desired object.

EXAMPLES OF RESOLUTION.

Ex. 32.


Concord preparing Discord.
Discord.
Discord resolved into Concord.
Return to first Concord for the sake of completeness.
Concord.
Discord.
Resolution of Discord into Concord.
Concord.
Discord.
Concord.
end.

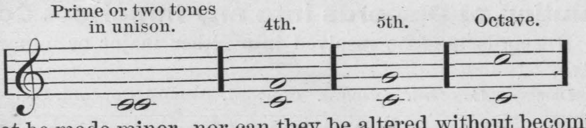
Different Kinds of Concords.

§ 12. There are two kinds of Concords: Perfect and Imperfect Concords.

PERFECT CONCORDS.

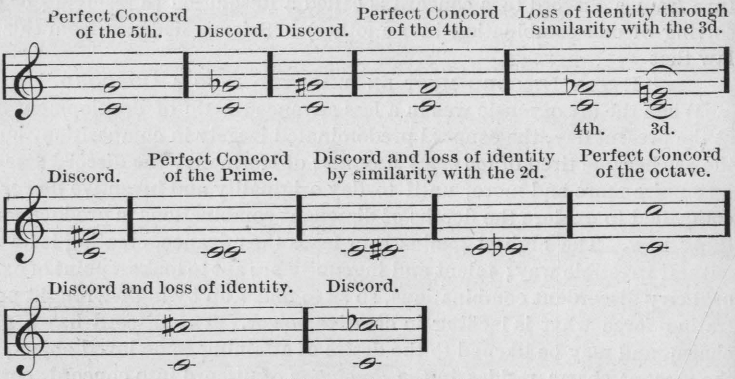
§ 13. The Perfect Concords are the Prime, Fourth, Fifth and Octave:

Ex. 33.



They cannot be made minor, nor can they be altered without becoming discords or losing their indentity.

Ex. 34.


Perfect Concord of the 5th.
Discord.
Discord.
Perfect Concord of the 4th.
Loss of identity through similarity with the 3d.
4th.
3d.
Discord.
Perfect Concord of the Prime.
Discord and loss of identity by similarity with the 2d.
Perfect Concord of the octave.
Discord and loss of identity.
Discord.

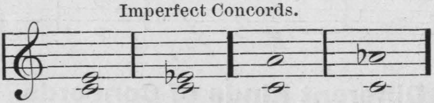
The imperfect concords are the third and the sixth.

NOTE.—The terms 'perfect' and 'imperfect' are merely technical and do not fully express what they are meant to convey. This is the case with many technical terms, because a single word cannot always express a complicated meaning. In the case of the words 'perpect' and imperfect', 'unchangeable' and 'changeable' would have answered equally well. Acoustically speaking the terms 'perfect' and 'imperfect' refer to the *perfect consonance* of tone combinations, or such *imperfect* ones as are slightly mixed with dissonant vibrations.

IMPERFECT CONCORDS.

§ 14. The Third and Sixth are changeable (so-called imperfect) consonances, that is to say, they may be changed from major to minor, and yet retain their purity of harmony. In the Prime, Fourth, Fifth and Octave this is not the case, as explained before.

Ex. 35.

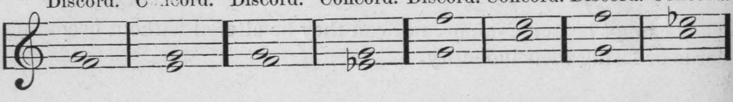


NOTE.—We have given the examples, so far, in the key of C, but it is understood that what we say of one key or particular interval, is true of all keys and all other similar intervals, because there is only *one* scale in music, which serves as a model to all the rest. Thus any scale has this succession of whole and half steps: 1. 1. ½. 1. 1. 1. ½; while any tone will give us a major third through the addition of another tone two whole steps above, and a minor third by the addition of a tone one step and a half above.

Resolution of Discords into any Imperfect Concord.

§ 15. Discords may be resolved into either major or minor imperfect concords:

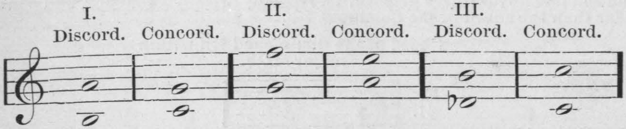
Ex. 36.



Resolution of Discords into Perfect Concords.

§ 16. This occurs more rarely, because the perfect concord, empty of harmony, does not furnish so fully satisfactory a resolution.

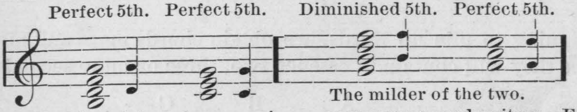
Ex. 37.



Generally such resolutions occur in connection with other parts, making up complete chords.

NOTE.—The successions of discord and perfect concord, as given in examples 37, I and II, would not readily be chosen by good composers, as they cover a suspicion of successive 5ths, indicated by the small notes, thus:

Ex. 38.

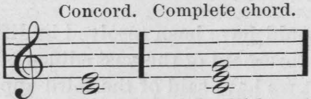


Sometimes however (rarely) such successions occur among good writers. Example 38 is rather harsh.

The Third.

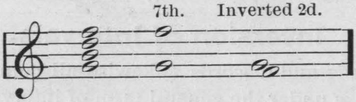
§ 17. From what we have said of perfect and imperfect concords, it may readily be inferred that the third is the origin and source of all harmony for musical composition, the only perfectly satisfactory concord. The fifth, while it rests the mind, does not fully satisfy it. It is empty of harmony. A piece would not, at the present day, readily be ended with a fifth. The third rests the mind and charms it by its sympathetic harmony. Especially does the major third do this. The minor, being depressed by half a step, produces a corresponding effect upon the mind, retaining however the beauty of harmony. All chords are built of thirds. One third forms a concord; two thirds, one above the other, form a complete chord.

Ex. 39.



Three thirds above each other form a chord still beautiful, but it contains a dissonance.

Ex. 40.

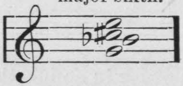


It will here be seen that the 4-toned chord upon **g** contains in essence a second, the principle of dissonance or discord. This chord is called the Chord of the Dominant 7th, and is the mildest positive discord known in music.

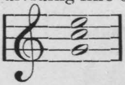
NOTE.—We say *positive* discord, for the chord of the *diminished* 7th, although requiring resolution like any positive discord, is virtually within a concord, and consequently still milder than the chord of the dominant 7th.

Chord of the diminished 7th within major sixth.

Ex. 41.

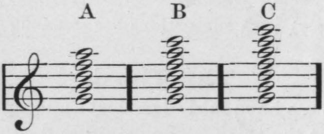


Among the 4-toned chords the chord of the diminished 7th (example 41) stands upon the dividing line of discord and concord. Among the 3-toned chords the chord of the fourth and sixth holds a similar position. This will receive full explanation in Harmony proper.



Continuing to pile up thirds, we obtain chords more and more discordant, since they will contain in essence two, three or more seconds.

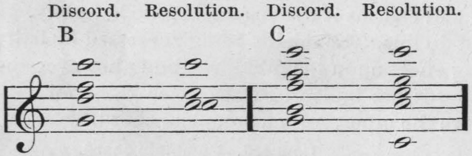
Ex. 42.



To make the chords at B and C palatable, we must omit some irreconcilable seconds.

The same Chords with some of the middle tones removed.

Ex. 43.

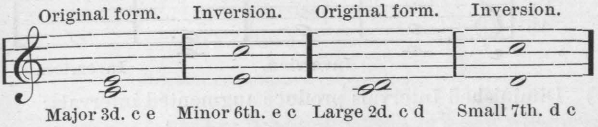


The chords at B could have been resolved in different ways, but we are now merely upon the threshold of the vast edifice of music and must not digress too much. What we have said of the third applies equally to the sixth. This concord however is only a transformation (inversion) of the third, and it is therefore unnecessary to enlarge upon its nature.

Inversion of Intervals.

§ 18. All concords and discords (likewise all complete chords), which we will here comprise under the general term of interval, are capable of inversion. They may thus appear under two different forms, namely in their original form and their inversion.

Ex. 44.



Rules of Inversion.

§ 19. The following series represent Intervals. In the first series of plain figures we give the plain intervals with their inversions:

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**

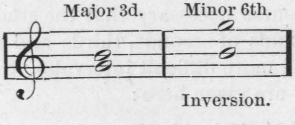
deducing **Rule I**, *a*) Prime inverted becomes the Octave and *vice versa*.
b) Second " " " Seventh " "
c) Third " " " Sixth " "
d) Fourth " " " Fifth " "
e) Fifth " " " Fourth " "
f) Sixth " " " Third " "
g) Seventh " " " Second " "
h) Octave " " " Prime " "

In the second series we give the Intervals of the major scale according to their *kind*, with their inversions:

	Perfect Prime.	Large 2d.	Major 3d.	Perfect 4th.	Major 6th.	Small 2d.	Perfect Octave.
Inversions:	Perfect Octave	Small 7th.	Minor 6th.	Perfect 5th.	Minor 3d.	Large 7th.	Perfect Prime.

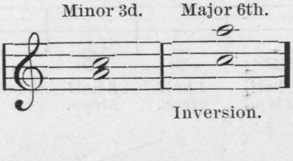
deducing **Rule II**, *a*) Major Intervals inverted produce minor intervals:

Ex. 45.



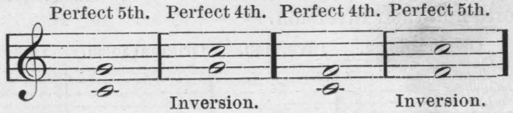
b) Minor Intervals inverted produce major intervals:

Ex. 46.



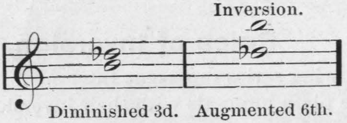
c) Perfect Intervals inverted reproduce perfect intervals:

Ex. 47.



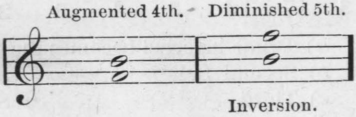
d) Diminished Intervals produce augmented intervals:

Ex. 48.



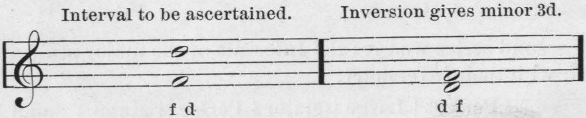
e) Augmented Intervals when inverted produce diminished intervals:

Ex. 49.



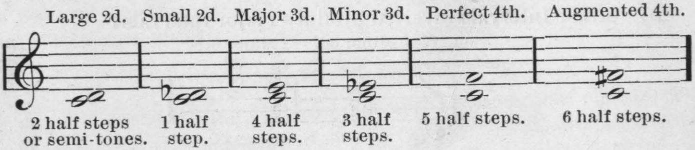
The Inversion of Intervals furnishes us a key to the speedy recognition of the more difficult ones. Thus, if we desired to ascertain what interval and what kind of interval the following is, we should proceed in this manner.

Ex. 50.



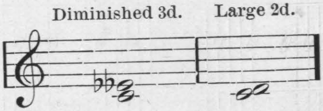
We now refer to Rule I, *c*) where it says the "Third inverted becomes the Sixth." This tells us that **f d** must be a sixth. We next refer to Rule II, *b*) where it says "Minor Intervals inverted become major", and we conclude that **f d** is a *major* sixth, since the inversion gave as a minor third (see Example 50). It is of course necessary that the student should become familiar with the various kinds of seconds, thirds and fourths (their inversions giving us the remaining more difficult intervals), the knowledge of which is easily acquired. They are given here:

Ex. 51.



A diminished third has, like the large second, to which it is similar in sound, two half steps:

Ex. 52.



We will count the half steps of the diminished third and will speak of flats, since the interval contains a double flat: **c** to **d** flat, 1st half step; **d** flat to **e** double flat, 2d half step. And the large second: **c** to **c** sharp (or **d** flat), 1st half step; **c** sharp to **d**, 2d half step.

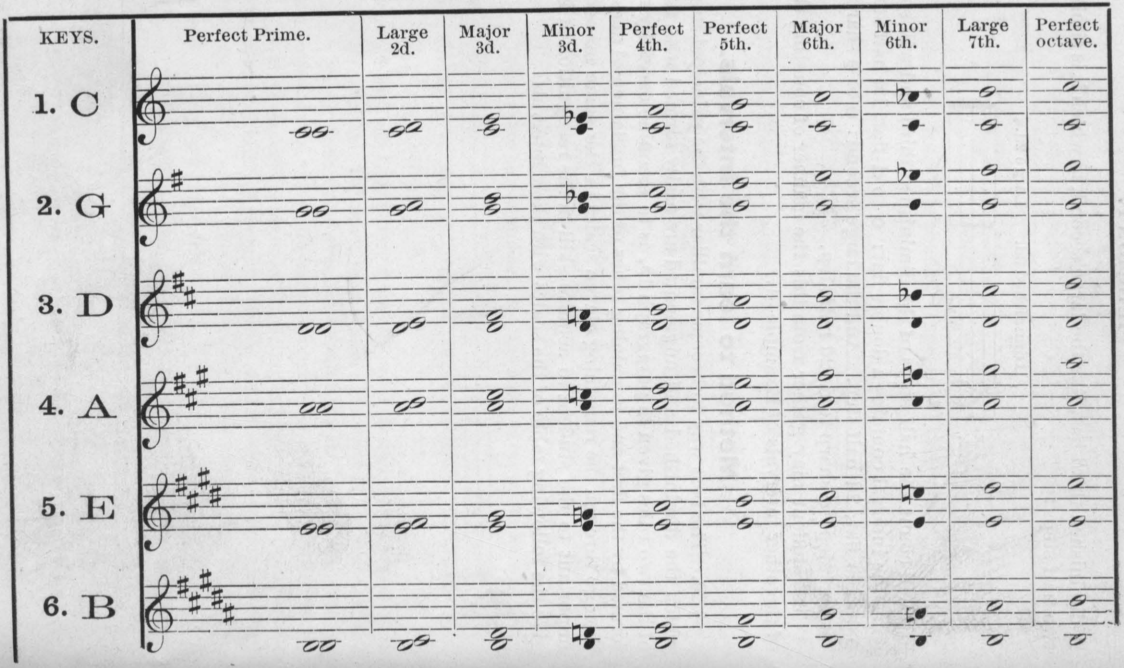
The student may gather from this the manner of counting the half steps of the other intervals of Example 51.

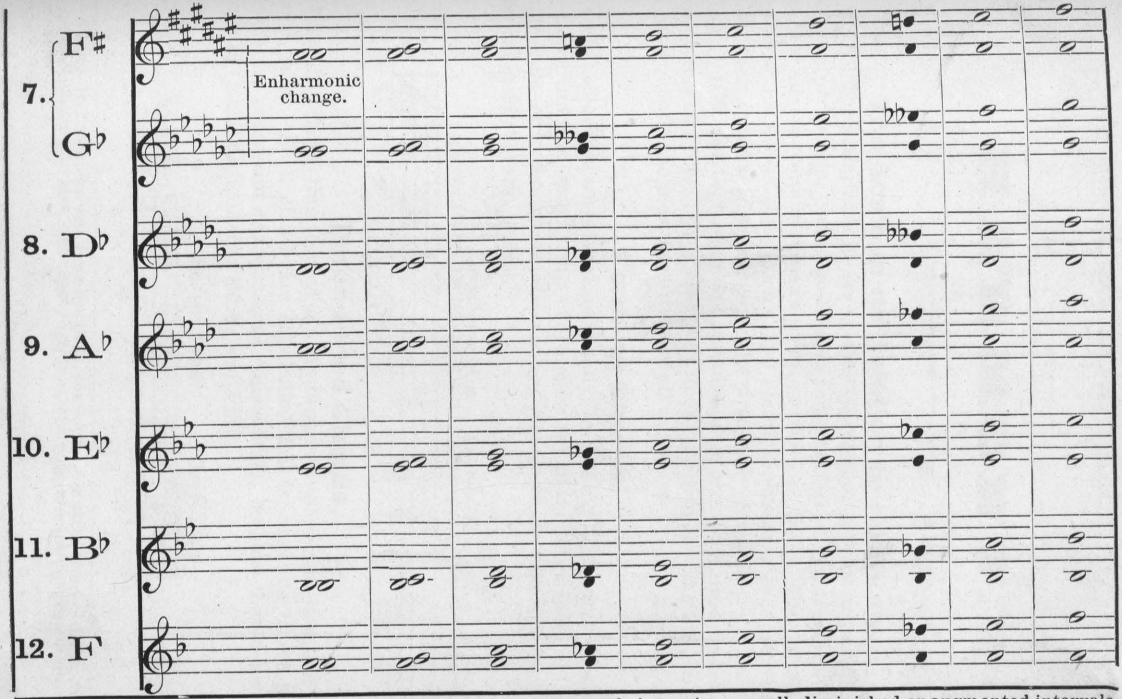
Method to learn the Intervals.

§ 20. The best way to become familiar with the principal intervals (from which the diminished and augmented are easily formed with the assistance of the two rules given in paragraph 19, is to examine carefully the intervals formed by the first and remaining tones of the fundamental major scale, and then go through the remaining eleven scales in the same manner. As it is important to the student to acquire skill in the recognition of intervals, we give the following table of the scales with their intervals:

Complete Table of Intervals formed by the Major and Minor Scales.

NOTE.—The Scales are related to each other in the Fifth (Perfect), meaning that they are at a distance of a Fifth from each other. Starting with C, we proceed by distances of perfect Fifths, until, returning to C, we have completed the *Circle of Fifths*.





Paragraph 9 treats of changing major, perfect and large intervals into minor, small, diminished or augmented intervals.

Paragraph 19 gives a full explanation of the process of inverting intervals, and the rules that underlie inversions. Once familiar with these rules the student will find it easy to invert any interval and recognize its kind.

END OF PART I.

PART II.

HARMONY.

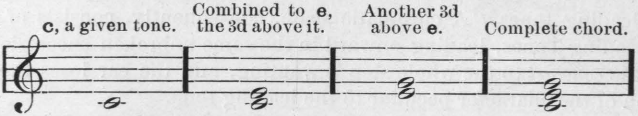
The Scale in its Relation to Harmony.

§ 21. The scale, with its seven successive tones, may be regarded as the emblem of Melody, but it holds also important relations to Harmony, in other words, to combinations of tones, or chords. Some tones of the scale are more important than others, and chords built upon these, derive from them their superior importance. The first tone of any scale is called the Tonic. It is the beginning and foundation of the scale, and therefore its most important tone. The chord built upon it, called the chord of the Tonic, is consequently the most important of all others.

Forming Chords.

§ 22. All chords are formed, originally, by placing thirds upon each other. In this manner we may form a chord upon any of the seven tones of the diatonic scale, or its five intermediate tones, just as we can take any tone as the starting point to form a scale.

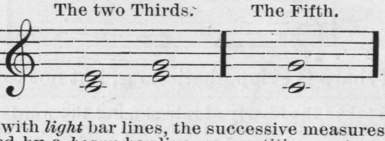
Ex. 53.



Three-toned Chords.

§ 23. Any chord, thus formed of 2 thirds placed upon each other, is a three-toned chord. Such chords are also called Triads, meaning 'three-toned.' Triads are consonant (harmonious, concordant), because they consist entirely of Concords, namely 2 thirds and a fifth.

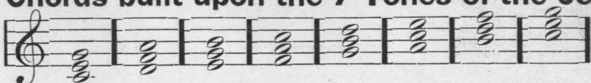
Ex. 54.



NOTE.—In Examples with *light* bar lines, the successive measures are musically connected. Measures divided by a *heavy* bar line, are entities—not connected with other measures.

The Chords built upon the 7 Tones of the Scale.

Ex. 55.

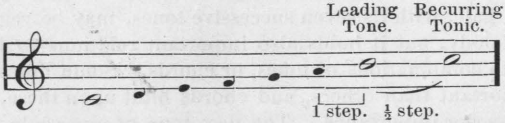


§ 24. To ascertain the comparative importance of these chords, and bring them in musical relationship with each other, we must examine the most important tones of the scale. both in a *melodial* and *harmonial** sense.

Tonic, Leading Tone.

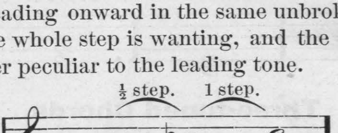
§ 25. The tone which precedes the Tonic, is called the Leading Tone.

Ex. 56.



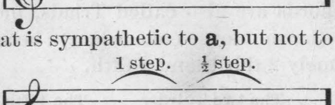
Between the Leading Tone and Tonic there is a distance (interval) of half a step (semi-tone), but between the Leading Tone and that which precedes it, namely **a**, there is a distance of a whole step. The consequence is that the tone **b** (the leading tone) inclines, in preference, to the tone nearest to it, the Tonic. The leading tone may thus be spoken of as being *sympathetic* to the most important tone of the scale, the Tonic. Hence it is called the Leading tone. The French call it the "sensitive note." All the twelve scales (they being alike) thus end with the sympathetic Leading Tone (½ step), and this is the distinguishing feature of our present scale and the entire modern system of music. We may add that all semi-tones, or half steps, are in a measure leading tones. A chromatic scale, consequently, consists of nothing but Leading Tones, leading onward in the same unbroken succession. But here the *contrast* to the whole step is wanting, and the ear loses the appreciation of the character peculiar to the leading tone.

Ex. 57.



b flat is sympathetic to **a**, but not to **c**.

Ex. 58.



f sharp is sympathetic to **g**, but not to **e**.

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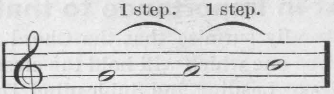
* The author has taken the liberty of introducing the words *melodial* and *harmonial*, as no others seemed sufficiently distinctive for his purpose. "Harmonic" is understood to refer to harmonic tones or "Harmonics."

Fx. 59.

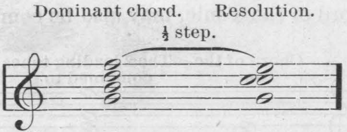


a not particularly inclined to either tone.

The Leading Tone ascends.

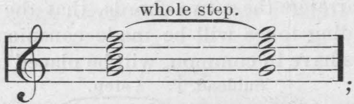
§ 26. From these considerations we deduce the important *special* law, that the leading tone proper (that preceding the Tonic by half a step) *ascends*, in preference; and the *general* law, that certain tones in a melody, or in a progression of chords, should proceed according to their sympathetic inclinations. Thus the **f**, in the progression of the following two chords, must descend:

Ex. 60.



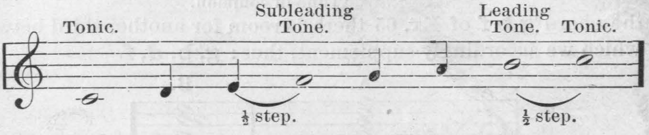
It would be faulty to write:

Ex. 61.



for the **f** is sympathetic to **e**, not to **g**. This same **f** holds a similar melodial relation in the diatonic scale, and we will therefore call it the *Subleading Tone*.

Ex. 62.



The subleading tone, then, is sympathetic to the tone below it.

Rules concerning the two Leading Tones.

§ 27. We may now establish two rules, for use hereafter:

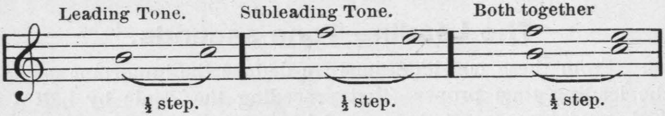
1. The Leading Tone *ascends*, in preference.
2. The Subleading Tone *descends*, in preference.

We have thus examined the Leading tones of the scale in a melodial sense. We shall presently show what influence they exert in a harmonial sense.

The Chord next in importance to that of the Tonic.

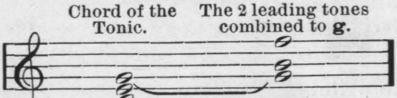
§ 28. We may naturally surmise that the Chord next in importance to that of the Tonic must be one which will hold the closest relationship to the latter. The sympathies of Leading and Subleading Tone suggest the direction in which we shall have to seek this chord.

Ex. 63.



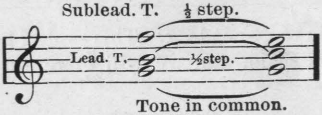
The sympathies of the two leading tones thus result in an important part of the chord of the Tonic, and we conclude at once that the chord which contains both leading tones must be the one nearest related to the chord of the Tonic. It takes but little ingenuity to discover that the **g**, which added to **c e** completes the chord of the Tonic, may also be combined to the leading tones:

Ex. 64.



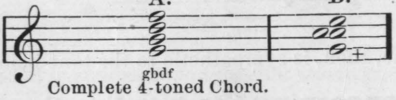
We will now so arrange these two chords, that the sympathetic inclinations of the two leading tones will be made conspicuous, while the tone which the two chords have in common, will be placed on a level.

Ex. 65.



In the chord **g b f** of Ex. 65 there is room for another third between **b** and **f**, which we accordingly supplement, thus: **g**, **b**, ***d***, **f**.

Ex. 66.



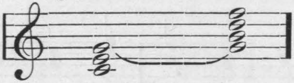
Complete 4-toned Chord.

Evidently these two chords are related by the closest bonds imaginable: the chord at A is drawn to that at B by a magnet, as it were, through the agency of the two leading tones, while both have an important tone, the fifth (**g**), in common. Thus we have indeed found the chord next in importance to the chord of the Tonic, namely, the chord of the *Dominant Seventh.*

+ NOTE.—The chord of the Tonic, at B, appears in its second inversion, that position being the natural result of the resolution of the dissonant 4-toned chord at A. The **c** in the chord of the Tonic is doubled, so as to supply the four parts given in the chord of the Dominant Seventh at A. These four parts move in the following manner: **g** continues as **g**; **b**, the leading tone, ascends to **c**; **d** descends to **c**, and the seventh **f** (subleading tone) descends to **e**.

The Fifth, the pivot and central point of the two most important Chords.

Ex. 67.



§ 29. Ex. 67 shows that the perfect 5th (**g** in this key), which forms with the Tonic **c** the extremities of the most important chord, furnishes at the same time the foundation for the chord next in importance. For this reason the fifth tone of the scale is its dominating, pivotal or governing degree, or, briefly, the Dominant.

Harmonial Influence of the two leading Tones of the Scale.

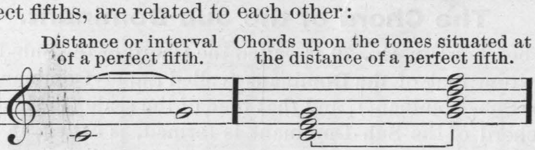
§ 30. The harmonial influence of the two leading tones of the scale may be defined as follows: They contribute to establish a close relationship between the two most important chords.

Relationship in the Fifth.

§ 31. The relationship between the chords of the Tonic and Dominant Seventh teaches us several important things:

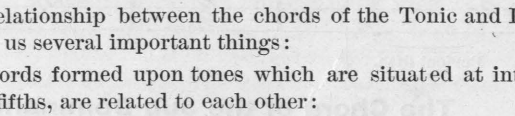
1. That chords formed upon tones which are situated at intervals of perfect fifths, are related to each other:

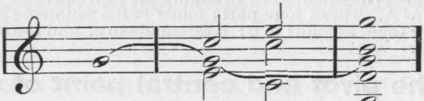
Ex. 68.


Distance or interval of a perfect fifth.
Chords upon the tones situated at the distance of a perfect fifth.

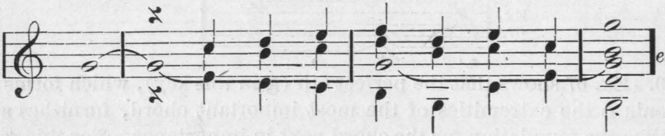
2. That such related chords have one tone in common.
3. That chords are related, *because* they have tones in common.
4. That the Fifth plays a very important part in the relationship of chords, forming a pivotal, central point, around which two chords, as it were, revolve.

Ex. 69.





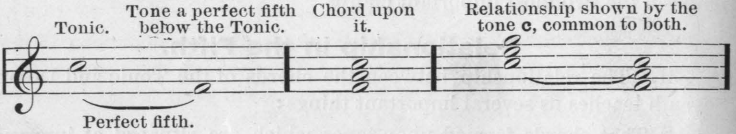
; or :



etc., etc.

Chords that are situated at the distance of a perfect fifth from each other, are spoken of, in technical language, as *related in the fifth.* The relationship in the fifth which we have shown to exist between the two chords under consideration, suggests the following *general* law: All chords situated at the distance of a perfect fifth, are related and have a tone in common. Thus the chord situated a perfect fifth *below* the Tonic, is likewise related to the chord of the Tonic.

Ex. 70.


Tonic.
Tone a perfect fifth below the Tonic.
Chord upon it.
Relationship shown by the tone **c**, common to both.
Perfect fifth.

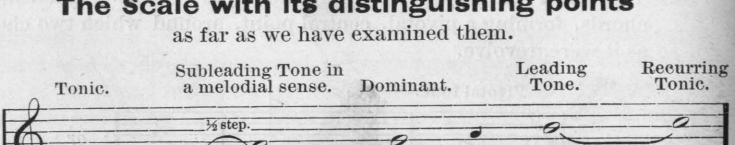
The Chord of the Sub-Dominant.

§ 32. The chord in Ex. 70 is called the Chord of the Sub-Dominant, in distinction from that of the Dominant (called Super-Dominant when compared to the Sub-Dominant), and that tone of the scale (in this case **f**) upon which the chord of the Sub-Dominant is formed, is called, in an *harmonial* sense, the Sub-Dominant. This is the same which, in a *melodial* sense, is called the Subleading Tone.

The Scale with its distinguishing points

as far as we have examined them.

Ex. 71.

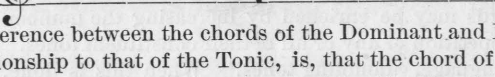

Tonic.
Subleading Tone in a melodial sense.
Dominant.
Leading Tone.
Recurring Tonic.
½ step.
Subdominant in an harmonial sense.
½ step.

§ 33. For the present we shall principally treat of the chords of the Tonic and Dominant, reserving for future study the chords of the Subdominant and other chords.

The plain Chord of the Dominant.

§ 34. We have said something of the nature of the chord of the Dominant 7th, and its close relationship to the chord of the Tonic; of their *melodial* relationship through the agency of the leading tones, and of their *harmonial* relationship through the tone they have in common. When we omit from the chord of the Dominant 7th the Interval of the 7th, the plain chord of the Dominant remains. It is a three-toned chord built upon the 5th tone, or Dominant, of the scale.

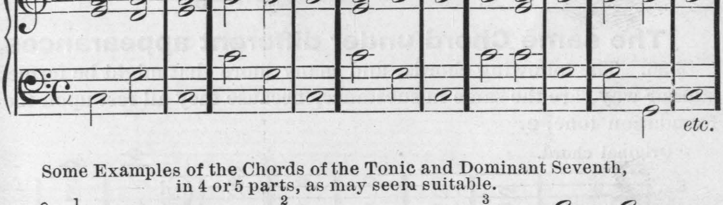
Ex. 72.



The only difference between the chords of the Dominant and Dominant 7th, in their relationship to that of the Tonic, is, that the chord of the Dominant 7th has an additional bond of sympathy in the subleading tone (**f**, the seventh of the chord), which resolves itself into one of the tones of the chord of the Tonic, namely its third (**e** in this case). The plain chord of the Dominant is more austere, that of the Dominant 7th more sympathetic.

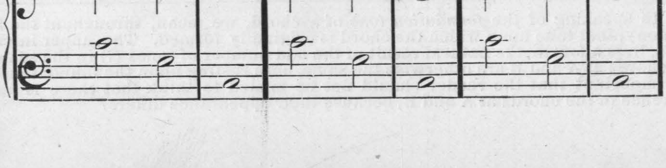
Some Examples of the Chords of the Tonic and Dominant, in 4 parts.

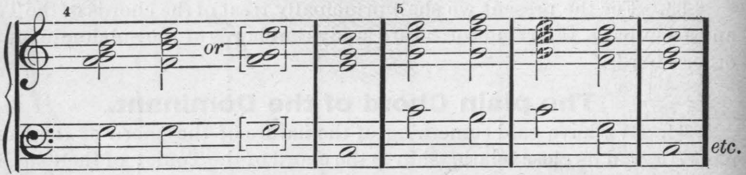
Ex. 73.



Some Examples of the Chords of the Tonic and Dominant Seventh, in 4 or 5 parts, as may seem suitable.

Ex. 74.





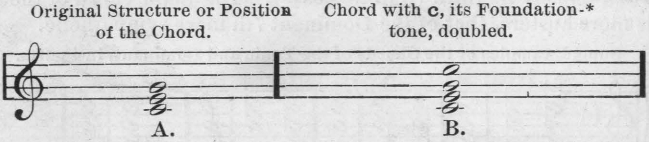
We propose to give, in the next following pages, a full explanation of the chords of the Tonic, Dominant and Dominant 7th, that the student may learn to handle them with skill. A secure and intelligent foundation will thus be laid to the further study of Harmony.

NOTE.—In the examples given to illustrate some particular point, there are many things which must be reserved for future consideration, such as, for instance, the exceptional descending of the leading toue in Ex. 74, 4 & 5. All such points will be fully explained in their proper place.

Doubled Tones.

§ 35. Chords may be enriched by increasing the number of their parts through the repetition of any or all of their constituent tones. This is called, in technical language, 'doubling tones.' When this is done, the arrangement of 'third upon third', observed in the original structure of the chord, ceases:

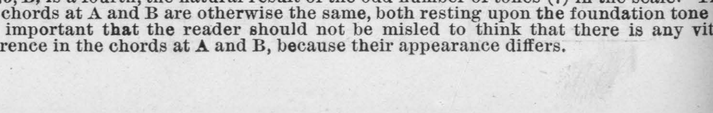
Ex. 75.


Original Structure or Position of the Chord.
Chord with **c**, its Foundation-* tone, doubled.
A.
B.

The same Chord under different appearances.

§ 36. The following chords, and many more that might be formed in a similar way, are the same in substance, because they all rest upon the same foundation tone, **c**.

Ex. 76.



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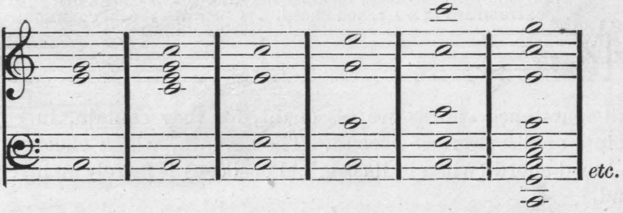
* In speaking of the *foundation tone* of a chord, we mean, throughout the Book of Harmony, that tone upon which the chord is originally formed. The upper interval, at Ex. 75, B, is a fourth, the natural result of the odd number of tones (7) in the scale. The two chords at A and B are otherwise the same, both resting upon the foundation tone **c**. It is important that the reader should not be misled to think that there is any vital difference in the chords at A and B, because their appearance differs.



The reader will observe that all these chords contain the three tones **ceg**. To enrich the original chord, one, two or all three of its tones have been doubled, thus obtaining what is often called "different colorings" of the same chord. Other particular colorings may be obtained, in a different field, by having the chord sung by three or more voices, or having it played upon the piano, or an entire orchestra.

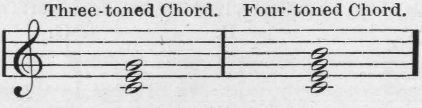
Different Intervals resulting from the Doubling of Tones.

§ 37. When three-toned chords are enriched by the doubling of their tones, two different intervals, not originally in the chord, may result, thus apparently removing the primary arrangement of 'third upon third'. But this primary arrangement is nevertheless ever present in *essence*, though not in appearance. The resultant intervals comprise fourths and sixths, that is, the inversions of the original third and fifth, or else octaves, tenths, twelfths etc., as shown in Ex. 76.

Four-toned Chords.

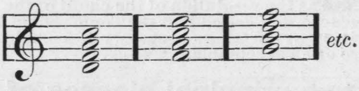
§ 38. In placing two thirds upon each other, we obtained three-toned chords, adding another third upon these two, we obtain four-toned chords.

Ex. 77.



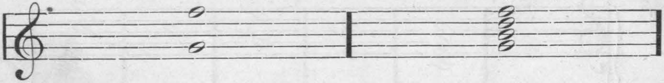
Four-toned chords, like three-toned chords, may be formed upon any tone:

Ex. 78.



Such chords are called chords of the seventh, because they are, in their original position, encompassed by the interval of a seventh.

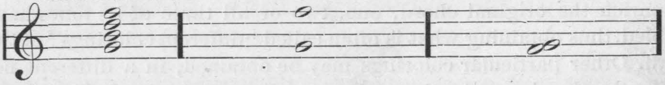
Ex. 79.



Interval of the Seventh, forming the extremities of a 4-toned chord. A 4-toned chord, or chord of the Seventh, complete.

All four-toned chords are dissonant, for they contain, in essence, the principle of discord: the second. The seventh, which encompasses every four-toned chord (when in its original position) is merely an inversion of the second.

Ex. 80.



Chord of the 7th. The 7th, its encompassing Interval. Inversion of the 7th: The Second.

Triads and Chords of the Seventh analogous to Concord and Discord.

§ 39. As the Third is the elementary expression of Harmony (see Part I, § 10, page 11), and the Second the elementary expression of Discord, so are the three-toned chords the Consonant and the four-toned chords the Dissonant Chords in music.

Resolution of 4-toned into 3-toned Chords.

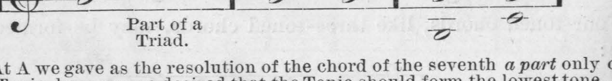
§ 40. "Every Discord must be resolved into a Concord."

(See Part I, page 13.)

In the same manner every chord of the seventh (four-toned chord) must be resolved into a Triad (three-toned chord).

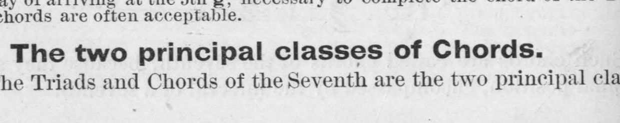
Discord resolved into Concord.

Ex. 81.



Chords of the Seventh resolved into Triads, or parts of them.

Ex. 82.

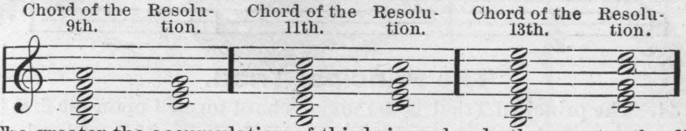


NOTE.—At A we gave as the resolution of the chord of the seventh *a part* only of the chord of the Tonic, because we desired that the Tonic should form the lowest tone. Thus we had no way of arriving at the 5th **g**, necessary to complete the chord of the Tonic. Incomplete chords are often acceptable.

The two principal classes of Chords.

§ 41. The Triads and Chords of the Seventh are the two principal classes of chords. There are, however, other chords, those of the 9th, 11th and 13th, formed by a further accumulation of thirds.

Ex. 83.

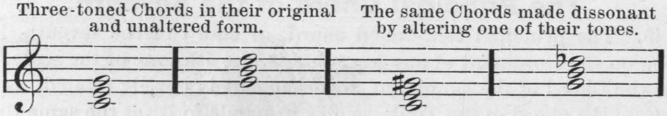


The greater the accumulation of thirds in a chord, the greater the dissonance produced, and the less frequent the occurence of the chord.

Three-toned Chords made dissonant.

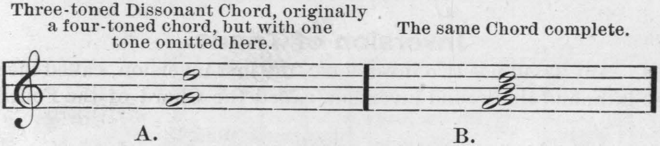
§ 42. Triads are consonant chords, but they may be made dissonant by altering one of their tones.

Ex. 84.


Three-toned Chords in their original and unaltered form.
The same Chords made dissonant by altering one of their tones.

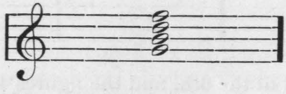
We often meet with dissonant chords, having but three tones, and yet none of them altered by sharps or flats. Such chords are originally four-toned chords, with one of the four tones omitted.

Ex. 85.


Three-toned Dissonant Chord, originally a four-toned chord, but with one tone omitted here.
The same Chord complete.
A.
B.

The chord in Example 85, B, is an inversion of the chord of the seventh upon **g**:

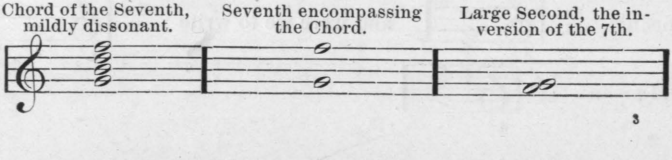
Ex. 86.



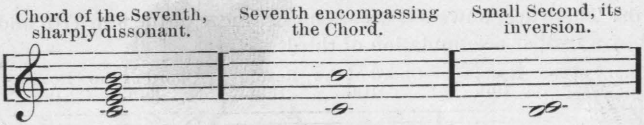
Mild and Sharp Chords of the Seventh.

§ 43. Some chords of the 7th are more dissonant than others. Those which contain in essence a small second, are necessarily sharper than those containing a large second, since the small second is the sharpest discord of the two.

Ex 87.


Chord of the Seventh, mildly dissonant.
Seventh encompassing the Chord.
Large Second, the inversion of the 7th.

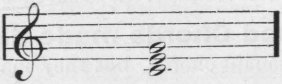
Ex. 88.


Chord of the Seventh, sharply dissonant.
Seventh encompassing the Chord.
Small Second, its inversion.

The Principal Triad.

§. 44. The principal Triad is the major chord formed upon the first tone of any scale. It is called the Chord of the Tonic, or Major Chord of the Tonic.

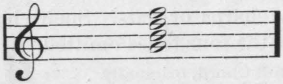
Ex. 89.



The Principal Chord of the Seventh.

§ 45. The principal four-toned chord, or chord of the seventh, is that built upon the Dominant of any key, that is, the 5th tone of the scale. It is called the Chord of the Dominant Seventh, and is closely related, as above shown, to the chord of the Tonic, while it stands to it, at the same time, in perfect contrast.

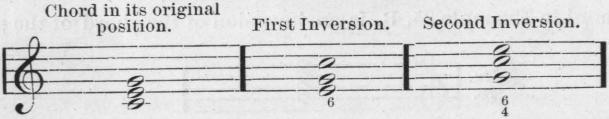
Ex. 90.



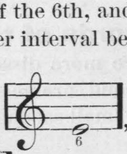
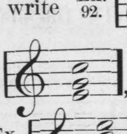
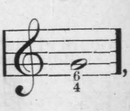
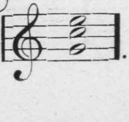
Inversion of Triads.

§ 46. Any Triad has two inversions: the first inversion, called the Chord of the Sixth, and the second inversion, called the Chord of the Fourth and Sixth.

Ex. 91.

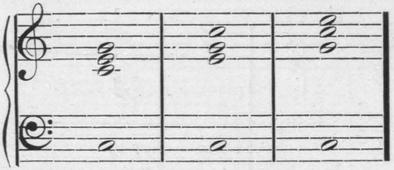


The fignre 6 means chord of the 6th, and the figures 4–6 designate the chord of the 4th and 6th (the lower interval being named first, where there are two or more figures).

If we were to write Ex. 92. , the following complete chord would be meant: Ex. 93. , and were we to write Ex. 94. , we would mean Ex. 95. .

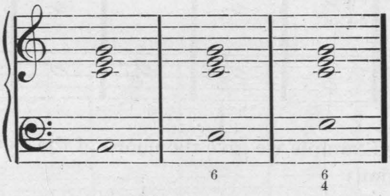
In the following example no inversion has been effected, since the foundation tone remains the same.

Ex. 96.



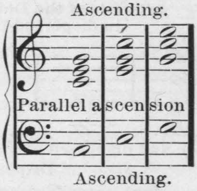
In Ex. 96 the position of the chord is changed in the three upper parts, but the foundation tone remains the same, thus no radical change has taken place in the chord, but merely one of convenience or harmonial coloring in the upper parts of the chord structure. In the following example, however, the inversions really take place, sincc the Bass (or lowest tone) is actually changed.

Ex. 97.



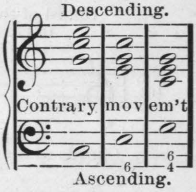
We would have given a rather unmusical example, had we written as follows:

Ex. 98.



the following, however, would be good:

Ex. 99.

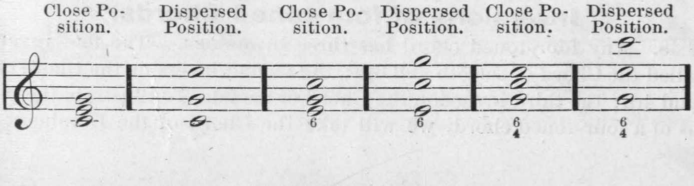


In Ex. 99 the contrary movement of the upper parts with the Bass gives us a better variety of progression. In Ex. 98 there is a poverty in the parallel ascension of all the four parts.

Close and Dispersed Position.

§ 47. Chords may appear in close or dispersed position, as it may suit the purpose of the musical writer.

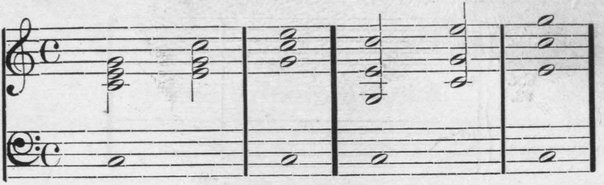
Ex. 100.



Chords with a Bass, in close position.

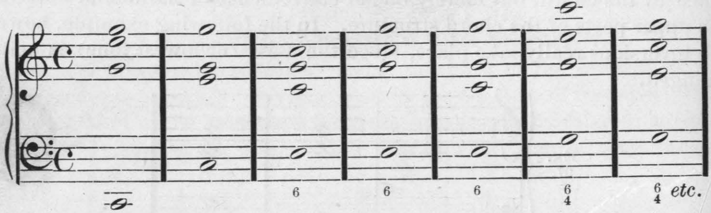
Chords with a Bass, in dispersed position.

Ex. 101.



Dispersed position may be varied in any manner to suit the purpose of the composer. The following are some examples:

Ex. 102.

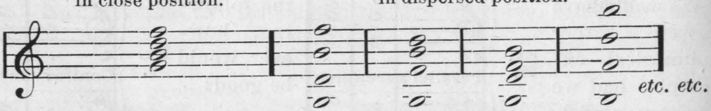


In the following Example we give the chord of the Dominant 7th in close and dispersed position:

Chord of the Dominant 7th in close position.

Chords of the Dominant 7th in dispersed position.

Ex. 103.

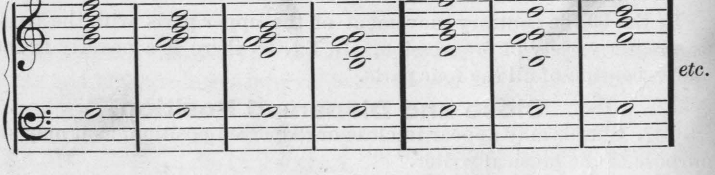


Chords of the Dominant 7th in close and dispersed position, with a Bass.

Close position.

Dispersed position.

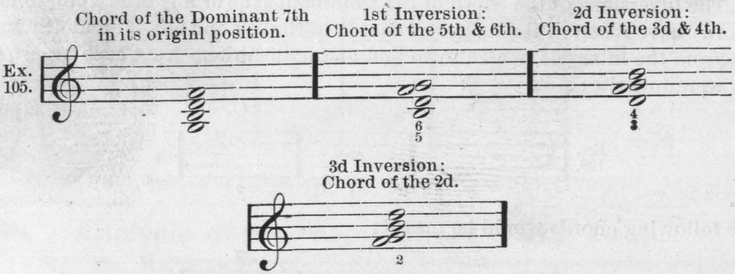
Ex. 104.



Inversions of four-toned Chords.

§ 48. Any four-toned chord has three inversions. The first inversion is called the Chord of the 5th and 6th; the second inversion the Chord of the 3d and 4th; the third inversion the Chord of the 2d. To illustrate the inversions of a four-toned chord, we will take the Chord of the Dominant 7th, and leave all other four-toned chords for later considerations. The same rules of inversion apply to all four-toned chords.

Ex. 105.



Chord of the Dominant 7th in its originl position.

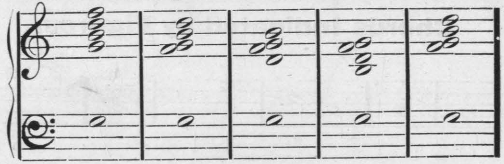
1st Inversion: Chord of the 5th & 6th.

2d Inversion: Chord of the 3d & 4th.

3d Inversion: Chord of the 2d.

Chord of the Dominant 7th in its original position and three inversions, with Bass added.

Ex. 106.

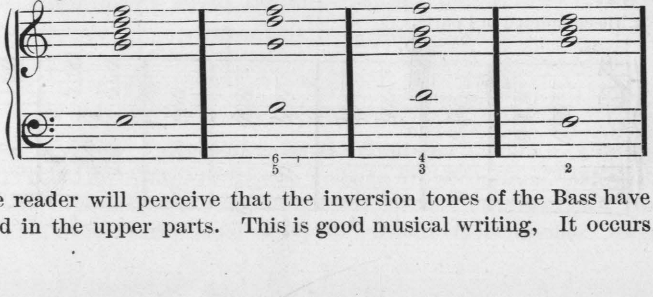


Chords of the Dominant 7th in different positions without having effected an inversion.

In Ex. 106 the position of the chord of the Dominant 7th is changed in the Treble parts (right hand, if considered written for the piano), but the Bass remains unchanged, therefore no inversion has taken place.

In Ex. 107 the chord appears in its inversions, because the Bass or lowest tone of the chord combinations is changed in a manner to produce these three different inversions.

Ex. 107.



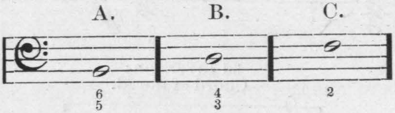
Chord of the Dominant 7th in its inversions.

Original Position. 1st Inversion. 2d Inversion. 3d Inversion.

The reader will perceive that the inversion tones of the Bass have been omitted in the upper parts. This is good musical writing, It occurs constantly in pieces written for four parts. It will presently appear why this style of writing is desirable.

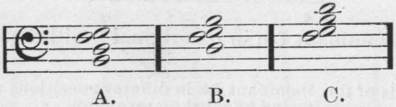
The inversions of the chord of the Dominant 7th (or any other four-toned chord) have received the names of chords of the 5th and 6th, 3d and 4th and 2d, from the intervals, which form and distinguish them from each other. If we were to write:

Ex. 108.



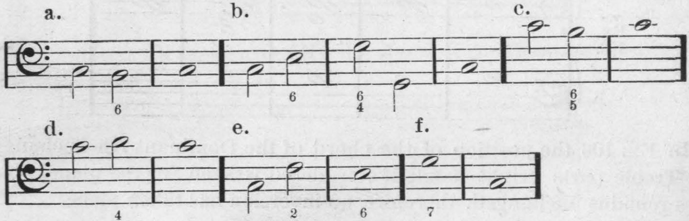
the following chords would be meant:

Ex. 109.



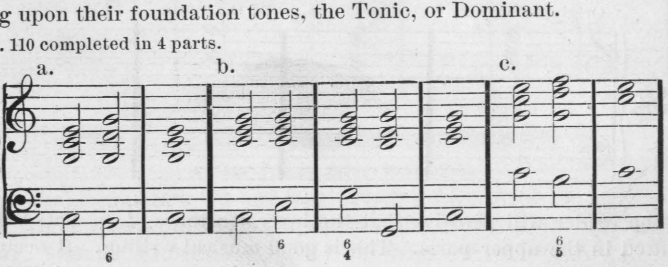
Chords Indicated by Figures.

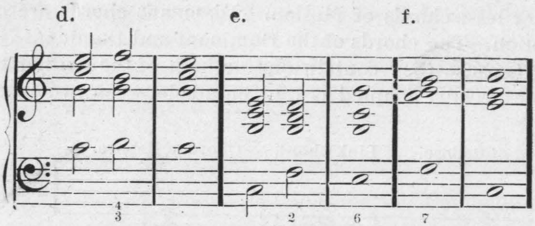
Ex. 110.



§ 49. Bass notes without figures in the study of Harmony are always understood to be plain three-toned chords in their original position, that is, chords resting upon their foundation tone. Thus the chords in Ex. 110, which have no figures attached to them, are chords in their original position, resting upon their foundation tones, the Tonic, or Dominant.

Ex. 110 completed in 4 parts.



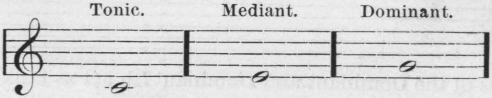


NOTE.—The Chord of the Dominant 7th at **f** is incomplete. This will be explained hereafter.

Analysis of the Major Chord of the Tonic.

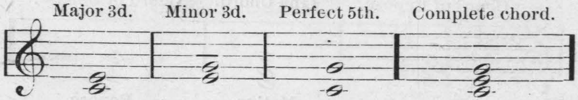
§ 50. The Major Chord of the Tonic consists of three tones and three intervals. The three *tones* are the Tonic, Mediant and Dominant.

Ex. 111.



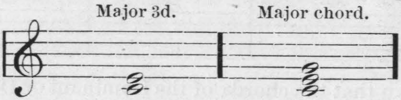
The three *intervals* are: The Major Third, Minor Third, and Perfect Fifth.

Ex 112.



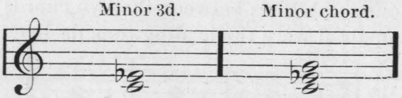
Of the 2 thirds contained in the chord, that formed of the foundation tone (Tonic) and Mediant, strikes the ear more impressively than that formed of the Mediant and Dominant, therefore the *lower* third decides the character (mode) of the chord, that is, the chord is major when the lower third is major.

Ex. 113.



When the lower third is minor, the entire chord is minor.

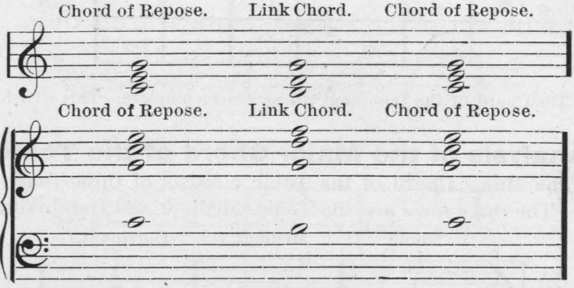
Ex. 114.



Repose and Motion.

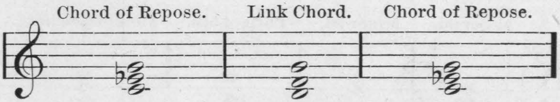
§ 51. There are chords of Repose and chords of Motion. All chords of the Tonic are essentially chords of Repose, hence all pieces of music (with a very few whimsical exceptions) end with a chord of the Tonic. All other chords are, more or less, chords of Motion. Dissonant chords are *essentially* chords of motion. The chords of the Dominant and Dominant 7th are chords of motion, because they contain one or both of the leading tones. They are therefore especially adapted as Link chords between two chords of the Tonic.

Ex. 115.

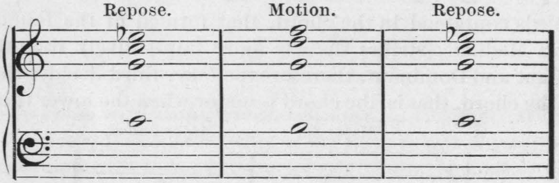


The chords of the Dominant and Dominant 7th act as Link chords equally well between two minor chords of the Tonic.

Ex. 116.

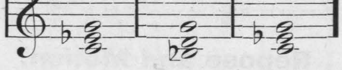


Ex. 117.



It is thus shown that the chords of the Dominant or Dominant 7th remain the same in major and minor. This is principally due to the circumstance that the leading tone establishes between the two chords a melodial relation, which would be impaired were the leading tone destroyed.

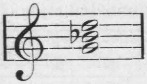
Ex. 118.



Here we have destroyed the leading tone **b** by flatting it, hence a less sympathetic relationship between the two chords, with loss of identity of the chord of the Dominant.

RULE: The Chord of the Dominant (or Dominant 7th) remains the same in the major and minor modes.

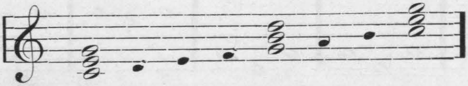
NOTE.—The chord of **g** minor may occur in a piece written in **c** minor, but it then indicates a modulation into a kindred key. It cannot act as a chord of the Dominant in *c minor*.



The Musical Succession of Chords.

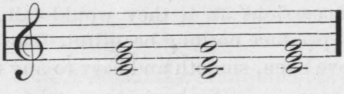
§ 52. Taking the chords of the Tonic and Dominant, as we find them in the scale, upon their respective foundation tones they offer no musical succession.

Ex. 119.



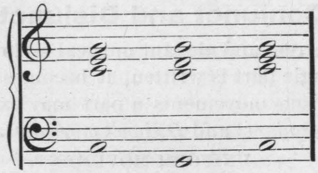
The same chords in musical succession:

Ex. 120.



or with a Bass:

Ex. 121.



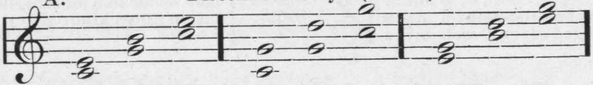
In Ex. 119 the chords each rest upon their foundation tone, but are not in musical succession. In Ex. 120 they are arranged in musical sucession, but the chord of the Dominant does not rest upon its foundation tone. In Ex. 121 we retain the musical succession, and each chords rest upon its foundation tone, through the addition of the Bass.

Musical Succession defined.

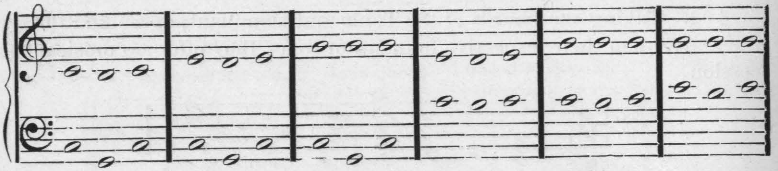
§ 53. In Ex. 121 the two chords (Tonic and Dominant) are written in 4 parts: the lowest, or Bass part, reading **c g c**; the Tenor part, immediately above the Bass, reading **c b c**; the Alto part, above the Tenor, reading **e d e**, and the Soprano part, as the highest, reading **g g g**. In the same manner we must consider and study all successions of chords. Good 4 part writing (the foundation of all composition) requires that each part (generally regarded in the nature of a *voice*) should be written in flowing, musically logical style. A disconnected, rambling style would be unbeautiful. To present this more strikingly, we will give the succession of *two parts* of the chords in question in their raw and musically disconnected state.

A. Disconnected style (Ex. 119).

Ex. 122.



B. Musically Logical Succession as found in Ex. 121.



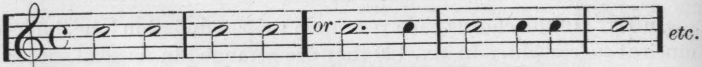
The reader will easily perceive that were two singers to attempt to render the disconnected successions at A, they would fail lamentably, and, could they succeed, would produce nothing beautiful. The logical succession at B, however, would prove even, smooth and easy to any two voices.

Uniform, Conjunct and Disjunct Movement.

§ 54. Since the correct and elegant musical style depends upon the manner in which each single part is written, it becomes a matter of importance to ascertain what various movements a part may execute. Three kinds are observed: *Uniform*, *Conjunct* and *Disjunct movement*.

UNIFORM MOVEMENT.

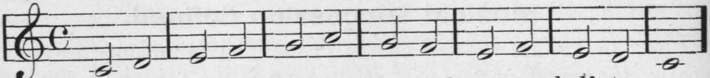
Ex. 123.



§ 55. In uniform movement, as Ex. 123 shows, the same note (without regard to rhythmical difference) is repeated.

CONJUNCT MOVEMENT.

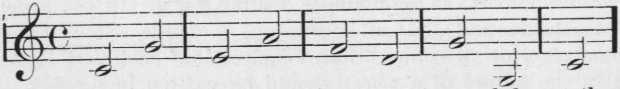
Ex. 124.



§ 56. In conjunct movement the part moves by step or half step.

DISJUNCT MOVEMENT.

Ex. 125.

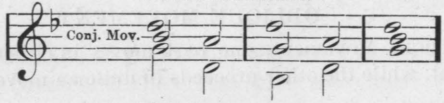


§ 57. In disjunct movement the part moves by intervals larger than a step.

These three movements constitute the principal guide in the formation of prominent melody as well as that of any subordinate part. In the plain succession of chords in 4 parts, which constitute our first study, the melody resides in the highest or Treble part. The subordinate parts are the middle parts and the Bass. The latter is the most important among these, forming the lower extremity and foundation in successions of chords. *Conjunct movement* is at first the most important. It should be cultivated diligently in 4 part writing, as it imparts a flowing style to the movement of the parts. *Uniform movement* is often useful or effective, partly as a contrast to either conjunct or disjunct movement, or else from harmonial necessities, when several parts proceed together.

Uniform Movement.

Ex. 126.

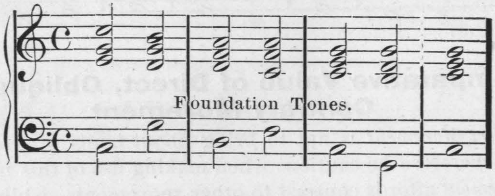


Disjunct Movement.

Disjunct Movement stands in contrast to Conjunct Movement. Its employment is of great value to beautify a melody, and for that purpose we shall make frequent use of it, Our first care, however, must be, to learn to bring tones into melodial and harmonial relation with each other. This is principally done by means of conjunct movement. We shall therefore resort to disjunct movement in such cases only, where unmistakable advantages arise from its use. These remarks do not apply to the Bass, which has a distinct character of its own. It progresses necessarily more frequently in disjunct movement than the other parts, so long as repeated use is made of the foundation tones of chords.

Conjunct and Uniform Movement.

Ex. 127.



Disjunct Movement.

Direct, Oblique and Contrary Movement.

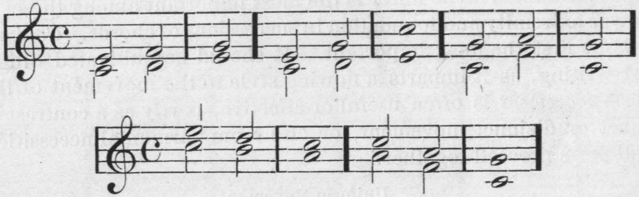
§ 59. When two or more parts proceed together, either Direct, Oblique or Contrary movement must result.

DIRECT MOVEMENT.

§ 60. In this style the two comparative parts move in the same direction, sometimes at unequal intervals, but still both upward or downward.

Direct Movement.

Ex. 128.

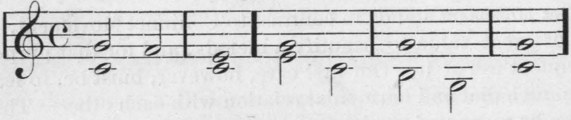


OBLIQUE MOVEMENT.

§ 61. In Oblique Movement, one part moves in either conjunct or disjunct movement, while the other proceeds in uniform movement.

Oblique Movement.

Ex. 129.

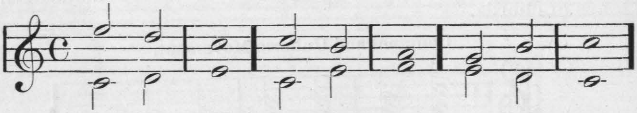


CONTRARY MOVEMENT.

§ 62. In Contrary Movement, one part ascends, while the other at the same time descends.

Contrary Movement.

Ex. 130.

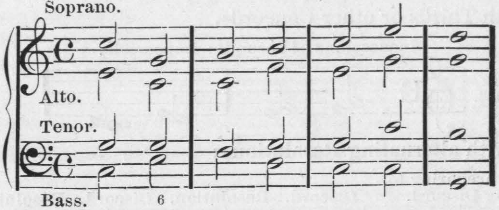


Comparative Value of Direct, Oblique and Contrary Movement.

§ 63. *Direct Movement* is apt to bring about faulty progression; the student should therefore be cautious when making use of this mode of writing. *Oblique Movement* affords contrast to other movements, while faulty successions cannot result from its use. *Contrary Movement* is the best. It places two parts in contrast with each other (see Ex. 130), and always proves an efficacious remedy for faulty progression. In the following example these different movements are illustrated:

In 4 parts.

Ex. 131.



1. In the Alto, Tenor and Bass occur examples of uniform movement.
2. In all the parts occur examples of conjunct movement.
3. In all the parts occur examples of disjunct movement.
4. Between Soprano and any of the other parts occur examples of oblique movement.
5. Between Soprano and Bass occurs contrary movement.
6. Between Soprano and Alto occurs direct movement.

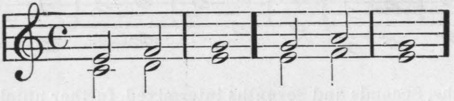
We will now explain the laws which govern the simultaneous progression of two parts.

Progressive Thirds.

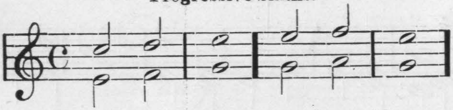
§ 64. Thirds, or their inversions, Sixths, may succeed each other.

Progressive Thirds.

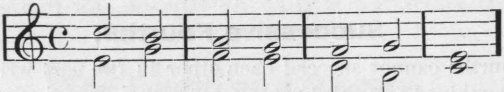
Ex. 132.



Progressive Sixths.



Both mixed, resulting in greater variety,



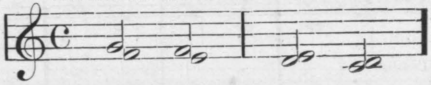
General Law: Good taste forbids the long continued progression of any Concords of the same kind.

Progressive Seconds.

§ 65. Seconds cannot easily succeed each other, as they are *discords* and require resolution. (See Part I, page 12: "Resolution.") They should be intermixed with Thirds or other Concords.

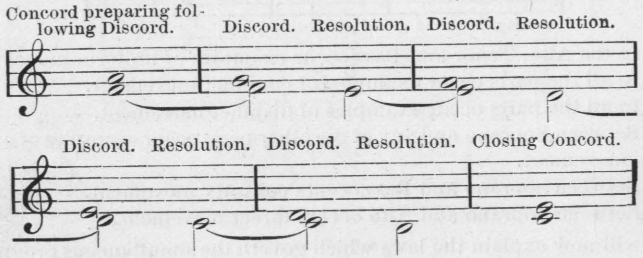
Successions of Seconds: Impossible.

Ex. 133.



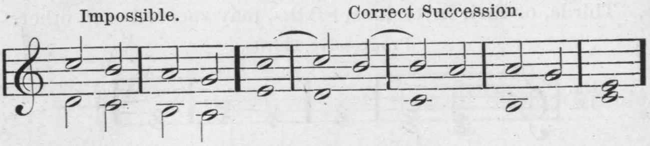
The same with alternating Resolutions:

Ex. 134.



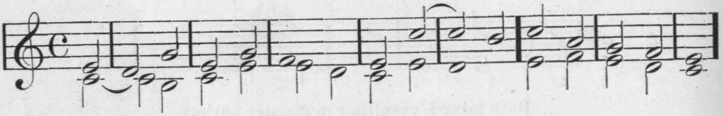
Nor can Sevenths, the inversion of Seconds, succeed each other without intermittent resolutions, to relieve the discordant effect.

Ex. 135.



Thirds, Sixths, Seconds and Sevenths intermixed, further unfolding the principle of variety.

Ex. 136.

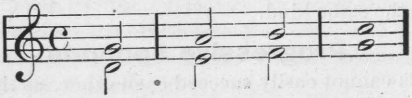


Successive Fourths.

§ 66. Fourths cannot succeed each other in *two part* writing, but they may, when combined to a third part.

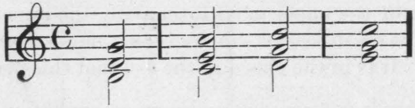
Fourths in two parts are not musical:

Ex. 137.



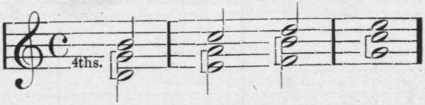
Fourths in three part writing, and resting upon the interval of a third, form a correct succession:

Ex. 138.



The Fourth forming the basis of chords, not so good.

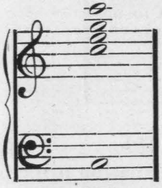
Ex. 139.



The Third is the foundation of all musical combinations, hence a piece of music must begin and end (rare eccentric examples excepted) with a chord having as its basis a *Third.* No piece can begin or end with the Second Inversion of a chord (chord of the 4–6), its basis being a fourth. The series of chords at Ex. 139 is, from a similar reason, not practicable.

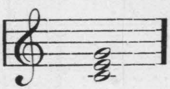
Beginning or Ending Chord of a piece.

Ex. 140.



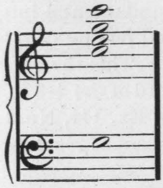
This chord reduced to close harmony, produces:

Ex. 141.



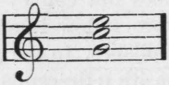
It has for its fundamental interval a third, and is therefore one fitted to begin or end a piece.

Ex. 142.



This chord reduced to close harmony, produces:

Ex. 143.

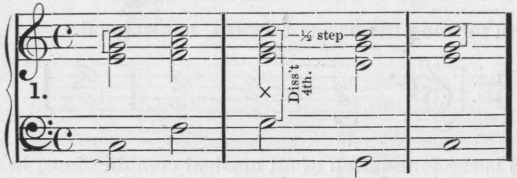


It has for its fundamental interval a fourth, and is therefore not fitted to begin or end a piece.

The Fourth as a Discord.

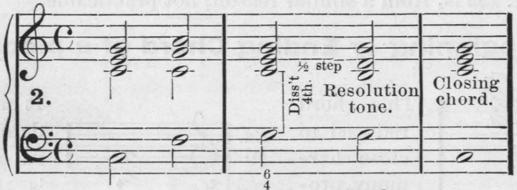
§ 67. The Fourth, in the science of Harmony, often has the nature of a discord—the old masters treated it distinctly as such—requiring resolution. It is not altogether easy to comprehend the true nature of this interval, and to distinguish the cases in which it appears as a *doubled tone* in a consonant chord, or as a *dissonance* requiring resolution. We will endeavor to shed some light upon this question by practical examples, hoping to make this important point quite clear as we proceed with our studies. Generally, when the *Bass* and one of the upper parts form a 4th, the upper tone of the interval thus formed, is *the dissonant 4th*, and must be resolved by moving half a step downward. It is in the chord of the 4-6 that this occurs, as follows:

Ex. 144.



Chord resting upon a 4th. Chord resting upon a 3d.

The following is a different position showing the Dissonant 4th more plainly:



Chord resting upon a 4th. Chord resting upon a 3d.

The two examples are the same, but we will in our explanation principally refer to No. 2, as it shows the 4th more plainly. This 4th, although consonant in its effects, requires resolution, because it is the fundamental interval of the chord, and does not convey to the ear the desired feeling of repose. A chord must therefore follow it which rests upon a 3d. This the chord of the Dominant accomplishes. In the passage from the chord of the 4-6 to that of the Dominant, the 4th **c** descends half a step, to **b**. In Ex. 144, No. 1, we have given the upper parts a higher position; the process of resolution is the same.

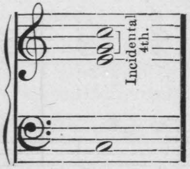
NOTE.—The Chord of the Dominant, resting upon a 3d, is fitted to serve as a resolution-chord to the chord of the 4-6, as it contains, however, the *leading tone* (and is therefore a chord of motion), it must move on further until permanent rest is attained in the closing chord of the Tonic, which is by nature a chord of repose.

The fourths which occur at the top of the first and last chord of Ex. 144, No. 1, are of a very different nature. They are merely the result of the doubling of the foundation tone **c** in chords which have the third as their basis, and are in their nature permanently restful.

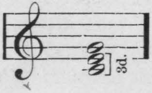
We resume, by placing under each other the two different examples.

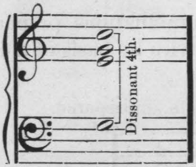
Chord with a fourth resulting from the doubling of the foundation tone **c**:

Ex. 145.

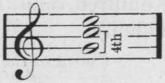


The same reduced to original position showing that it contains no 4th, in essence·





The same reduced to 3 tones, showing that it contains a 4th, in essence.·



We denominate these two different 4ths as the *dissonant* and *incidental* fourth.

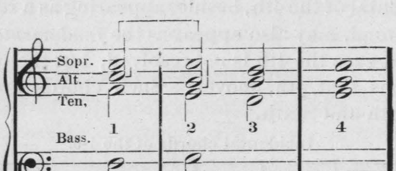
Dissonant and Incidental Fourth.

§ 68. The Dissonant 4th, strictly speaking, requires preparation and resolution.

PREPARATION AND RESOLUTION OF THE DISSONANT FOURTH.

§ 69. Its preparation may be accomplished in various ways, or even be entirely omitted. Strictest preparation takes place by having the dissonant tone appear in the same part of the preceding chord as a *consonant* tone. Such preceding chord must rest upon a third (when reduced to its original position).

Ex. 146.

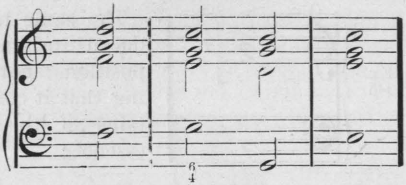


Soprano of chord 1 has the consonant **c**, and thus prepares the dissonant **c** of chord 2, in the same part.

Preparations may also take place by *conjunct* movement, the preparation at Ex. 146 being by *uniform* movement.

Conjunct Movement.

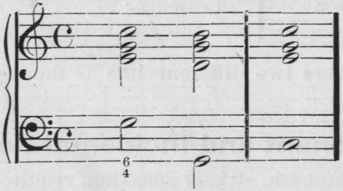
Ex 147.



The ear having become familiar with these combinations, preparation may be entirely omitted, and the chord of the 4-6, with its basis of a 4th, appear openly, suddenly.

Chord of the 4-6, with its Dissonant 4th, unprepared.

Ex. 148.



The chord of the 4–6 thus unprepared, might begin some section in the middle of a piece, but hardly at the very beginning, where a chord of greater strength is required, one resting upon a third. In short, the chord of the Tonic is the proper chord for a beginning.

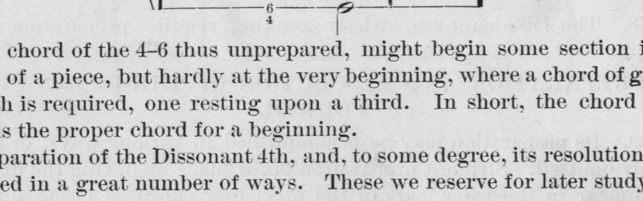
Preparation of the Dissonant 4th, and, to some degree, its resolution, may be varied in a great number of ways. These we reserve for later study.

Incidental Chords of the 4-6.

§ 70. The incidental of the 4th, besides appearing as a result of the doubling of the foundation tone, may also appear as the *fundamental interval* of a chord of the 4-6. In that case the 4th is *not* resolved, but the *lower* tone of the interval, which forms that 4th, moves. Such chords are called Incidental chords of the Fourth and Sixth.

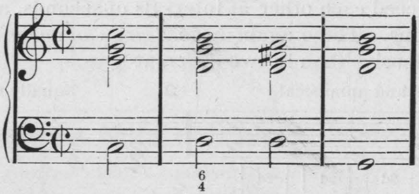
Incidental chords of the 4-6.

Ex. 149.

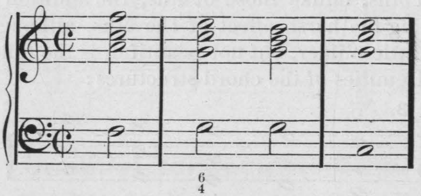


In Example 149 the 4th **g** *remains* **g** in the next chord, and is therefore unresolved. The Bass tone **d**, the lower tone of the interval **d g**, moves to **e** or **c**. Had we resolved the 4th **g**, by causing it to descend half a step, the following modulation into the key of G would have been the result, that is, a mere transposition of a similar example in the key of C, with preparation and resolution of the Dissonant 4th, and therefore no Incidental chord of the 4-6 at all:

Ex. 150.



The same in the key of C:



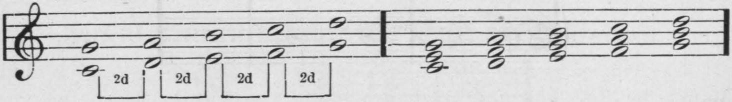
FINAL RESUME: The 4th as an interval is not dissonant *per se*, on the contrary it is, as we know, one of the perfect concords; combination with other intervals in certain successions of chords, as we have shown, give it sometimes a character in one respect similar to that of a dissonance (requiring resolution), and under such circumstances the ear demands that it should be followed by the more restful consonance of a third.

Consecutive Fifths.

§ 71. Successions of 5ths are generally forbidden. This fundamental law now in force for several centuries, will ever retain its force. Much has been written about it, and all authorities unite in condemning successive 5ths in the same parts, yet no absolutely satisfactory reason has, up to the present day, been given for its existence. This is partly due to the fact that consecutive 5ths are in a great many cases tolerable, or entirely inoffensive, and that consequently no simple law can be framed discriminating between the good and the bad. In reality there are *no* consistent *special* laws in music, for the reason that it is an art besides being a science: an art so complex in its organism, that often several laws. contradictory in their nature, bear upon different points of the same case. At such times *one* law must be waived for the benefit of another, and thus it occurs that a fault is allowed to pass for the sake of avoiding one still greater. Again, when a succession of intervals, in itself harsh or faulty, is unavoidable, it is merely conditional that it should be so managed as not to be offensively perceptible. In the case of consecutive 5ths in the same parts, there are *degrees* of faultiness. The worst are those which succeed each other at intervals of seconds, at the *extremities* of chord combinations. These again have *degrees* of *badness*. In the same key they are less offensive than in two different keys..

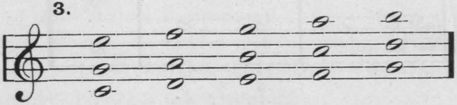
1. Bad and unmusical. 2. Equally bad

Ex. 151.



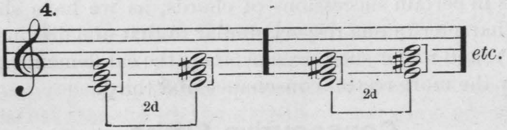
In successions of 5ths, unlike those ot 4ths, the addition of the 3d is not capable of overcoming the harsh effect of the 5ths, although mildening it somewhat. Still a little milder, but not beautiful, is the following, the 5ths not being at the extremities of the chord structures:

3.



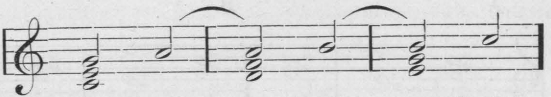
The harshest 5ths are produced in two successive *different* major keys, at their extremities:

4.



All these 5ths, consecutive in the same parts, produce more or less hard and disagreeable effects, because the interval of a 5th contains within it a complete chord, and because there is no relationship in successions of such chords when proceeding by seconds; could some link be etsablished, the effect would be modified, or entirely cease. Thus the chords of Ex. 151, No. 4, have no relationship, that is, they have no tones in common, and the effect upon the ear is that of complete and well defined *unrelated* keys, succeeding each other without a link to bring them into logical connection—in their raw state, as it were.

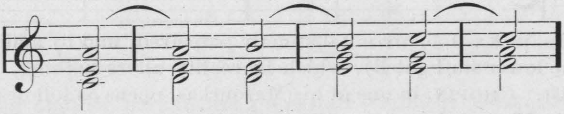
Ex. 152.



This succession is somewhat better, but the consecutive 5ths are still too prominent.

A little better again is the following:

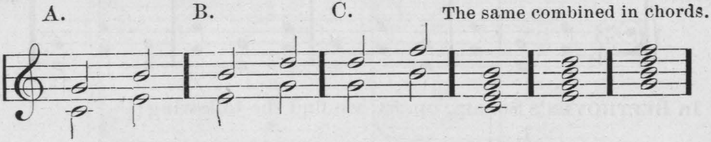
Ex. 153.



Consecutive 5ths combined in one chord.

§ 72. This is another class of consecutive 5ths; they are much milder, and may be used, when not made prominent.

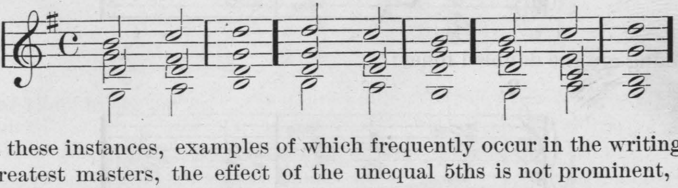
Ex. 154.



Unequal consecutive 5ths.

§ 73. This is still another kind, such as we notice at Ex. 154, C, one being perfect, the other diminished. Such unequal 5ths are often tolerated even when they succeed each other by seconds, provided they do not strike the ear too prominently, that is to say, as the *principal* effect of the chord combination.

Ex. 155.

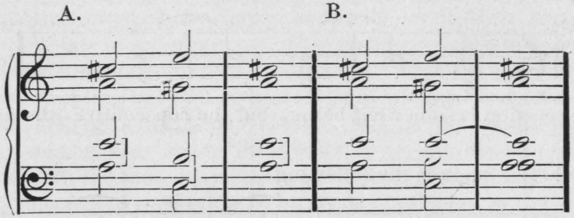


In these instances, examples of which frequently occur in the writings of the greatest masters, the effect of the unequal 5ths is not prominent, and therefore admitted.

Consecutive 5ths at Intervals of 4ths.

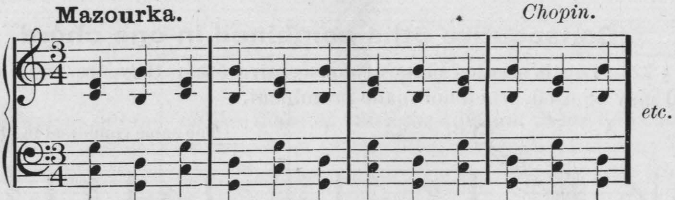
§ 74. Consecutive 5ths of this kind are not bad, instrumentally; vocally, no finished composer would write them.

Ex. 156.

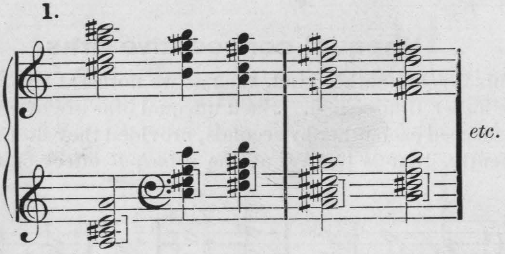


The 5ths, in Ex. 156, are not distinctly perceived, and by adding another part on the lower staff (at B), which in reality alters nothing, the 5ths no longer exist. CHOPIN, in one of his Mazourkas, opens as follows:

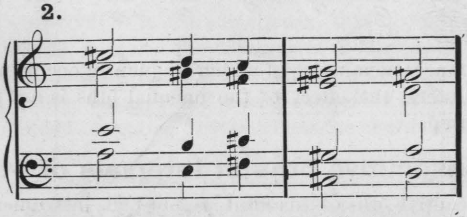
Ex. 157.



In BEETHOVEN's Sonata, op. 53, we find the following:



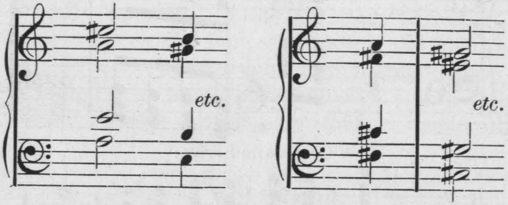
or taking out the doubled tones:



In this instance, where the 5ths proceed by 2ds (steps or half steps), the author has employed contrary movement, which overpowers their bad effect. He uses direct movement, where they proceed by distances of 5ths:

3. Direct movement of all the parts.

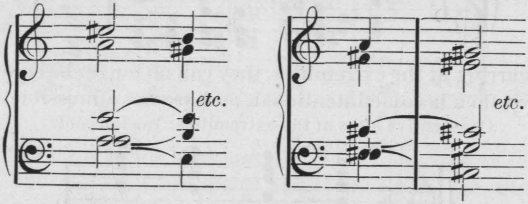
Ex. 160.



In adding another part in the lower staff (similarly to Ex. 156, B), the effect upon the ear would have been the same, while the 5ths would no longer exist, thus showing the innocuousness of these progressions.

Part added below, resulting in the extinction of the consecutive 5ths.

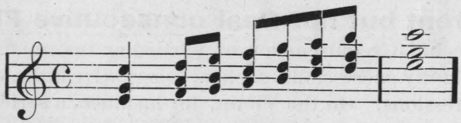
Ex. 161.



Incidental Diatonic and Chromatic Consecutive Fifths.

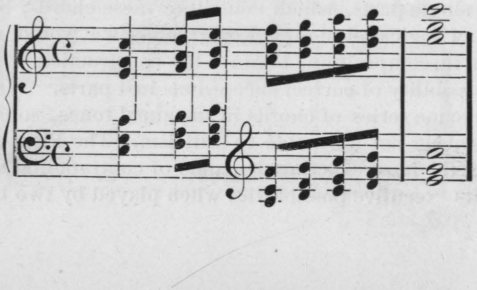
§ 75. Consecutive 5ths of this kind result from the doubling of tones. They are inoffensive, when not occurring at the extremities.

Ex. 162.

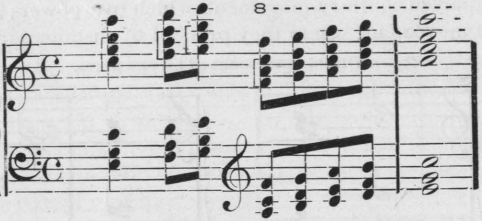


The same in six parts:

Ex. I63.

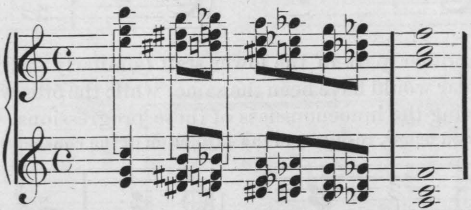


Ex. 164.



Chromatic Series:

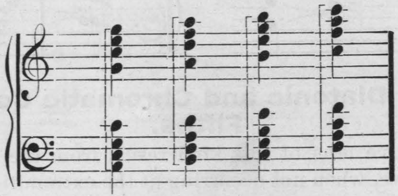
Ex. 165.



When occurring at the extremities, they can no longer be called incidental fifths, for they then become intentional, and are not admissible.

Consecutive fifths at the extremities: inadmissible:

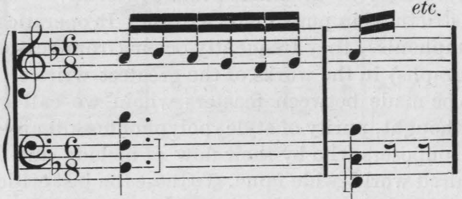
Ex. 166.



Apparent but not Real consecutive Fifths.

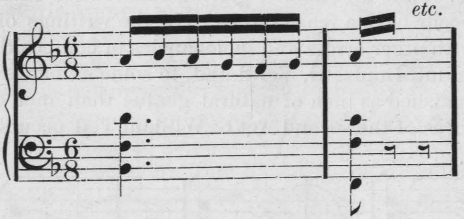
§ 76. The technial requirements of particular instruments often occasion seemingly faulty successions, such as consecutive fifths, octaves or other unmusical progressions. On the Violin, for instance, a series of arpeggioed chords, each of four tones, may be executed with fine effect, and yet the progression of the single parts, which constitute these chords, be disconnected and without any logical design. Nevertheless we would not accuse the player of error in composition, because the construction of the instrument excludes the possibility of correct successions in 4 parts. Were four violins to execute the same series of chords in sustained tones, some queer music would result—music not amenable to criticism. The Piano, although capable of meeting the most exacting demands of contrapuntal composition, is yet limited in its executive possibilities when played by two hands. A style has consequently arisen, orchestral in its effect, which with bold touches at distant points of the instrument, or other contrivances too numerous to mention, mimics a breadth and grandeur suggestive of a much larger number of parts than those really executed. In this essentially free style the intelligent critic discriminates between the impossibilities of the instrument and the requirements of a scientific progression of each single part. Frequently these are merely hinted at by the pianist-composer, and this simply because completeness was not possible. In the same manner apparently faulty successions may arise, which in reality are justifiable. In a critical review of a New York musical journal consecutive fifths were pointed out as faulty in a song of Hans von Bülow, called "Préférence." We give an example of these as follows:

Ex. 167.



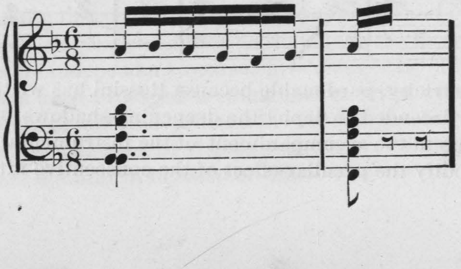
To make the 3 parts of the bass move in logical progression the following more difficult and less effective chord would have to be substituted for the second one:

Ex. 168.



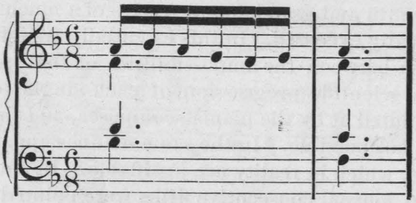
The author, on the other hand, by giving to the accompanist two easily executed full and limpid sounding chords, *hints* at the following rich series:

Ex. 169.



That no offensive consecutive 5ths are present, is shown bv the following contraction to close harmony:

Ex. 170.

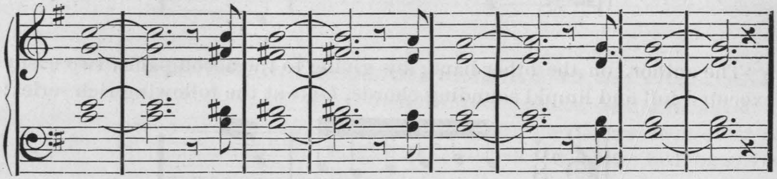


Notorious Examples of Consecutive Fifths.

§ 77. It should here be mentioned that consecutive 5ths are principally forbidden with strictness in pure 4 part writing. In operatic music, and even Oratories or Symphonies, they frequently occur (from reasons explained in preceding paragraphs) in the works of the greatest writers. Nevertheless a difference must be made between masters whom we call great because of their beauty of thought, purity of style, polyphonic skill and depth of learning—and such composers who by their flow of melody and dramatic genius alone have acquired world-wide fame. To these the just critic dare not assign an equal place beside such *great* masters as Bach, Handel, Beethoven, Mozart, Haydn, Mendelssohn or Schumann, but the entire musical world may admire them and be charmed by the magic power of their song.

In the works of the first named glaring consecutive fifths are rare, and when they do occur have a reason to be. In the writings of the last named they abound, with other errors and inelegancies of composition. The modern Italians, Bellini, Donizetti, Verdi and, to some extent, even Rossini, are far more distinguished as men of natural genius than men of learning. In the opening chorus of the second Act of William Tell occurs the following:

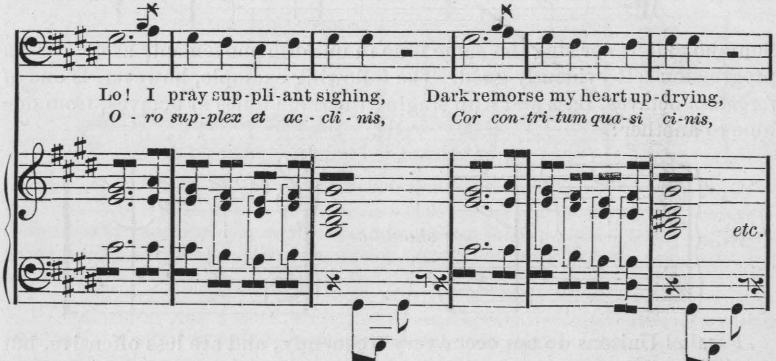
Ex. 171.



This is an excentricity, pardonable because Rossini has written it. The author apparently intended to depict the deepening shadows of declining day. There are points in the accompaniment of the instrumental score, which to some extent modify the peculiar effect of the consecutive fifths. Writing of this kind can hardly be called 4 part writing, since the similarity of the progression of the 4 parts is absolutely uniform and without contrast. (See "Four part writing", § 83, Part II.)

In Verdi's Requiem, Bass Solo "From the accursed" (*Confutatis maledictis*) we find the following:

Ex. 172.

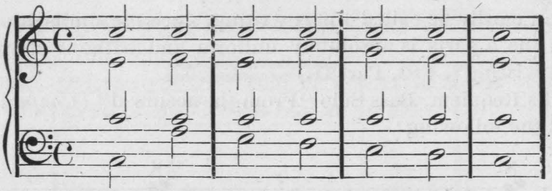

Lo! I pray sup-pli-ant sighing, Dark remorse my heart up-drying,
O - ro sup-plex et ac - cli - nis, Cor con-tri-tum qua-si ci-nis,
etc.

The descending 5ths do not sound as harshly as that *ascending* in the second measure, but in our opinion there was no necessity for introducing these 5ths; the same sentiment could have been expressed more beautifully with other music. Verdi is known to have become lately an ardent admirer of what is generally termed the "Music of the Future", and the progressions in question seem to have been written in defiance of accepted musical law. The effect produced is not beautiful enough to justify departure from the rule in this case. We sum up by saying that consecutive 5ths should never be written when producing an unbeautiful effect, but they are admissible when necessary and at the same time harmless, or when they produce, as may be the case in *rare instances*, a beautiful effect.

Consecutive or Parallel Octaves and Primes (Unisons).

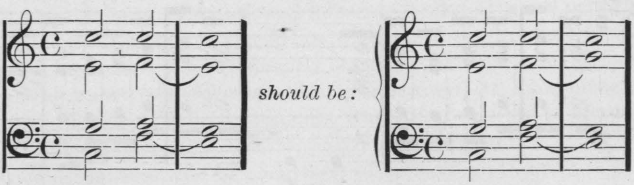
§ 78. It is universally accepted that in the progression of several parts at a time (principally in 4 part writing), the most varied and beautiful effects are produced, when no part resembles another. As the harmonies flow on, each part pursues its independent course, producing new beauties at every step. Hence it has been adjudged inadmissible in strict 4 part writing that the two parts should at any time proceed in the same successive tones, either in octaves or primes (unisons of the same pitch), with the one exception when they proceed in uniform movement, thus:

Ex. 173.



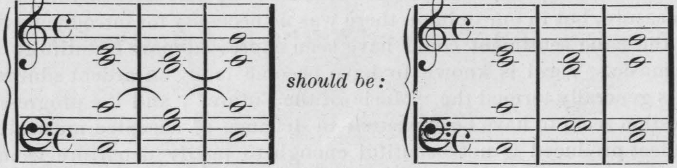
Soprano and Tenor sing the same tone in uniform movement, at octaves, a progression self-evidently good. The following example, however, is one of *forbidden* octaves, Bass and Alto singing the same tones at octaves, from one tone to another:

Ex 174.



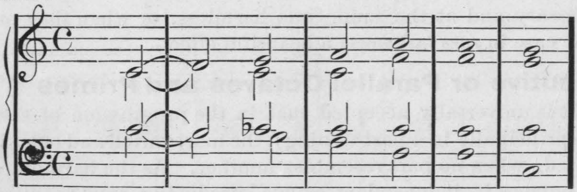
Parallel Unisons do not occur very frequently, and are less offensive, but they are equally poor in principle.

Ex. 175.



There are some cases in which parallel unisons cannot be avoided, and are admissible:

Ex. 176.



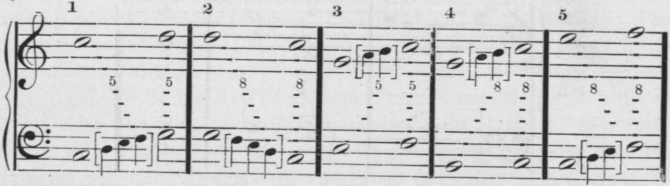
In this example the four parts move, as it were, in *two* parts for a moment; in such a case unisons are admissible.

NOTE.—In choruses, also 4 part writing, it often occurs, that whole sections of a piece are sung in unison; in such cases it is understood that the style of 4 part writing is, for the time being, entirely suspended, and that a plain melody (*one* part) is given, reinforced by a number of voices.

Covered or Concealed Octaves and Fifths.

§ 79. These are not admissible in 2 part writing, but may, with some exceptions, be tolerated in writing for four or more parts. The following progressions, according to Cherubini and other masters, are prohibited in 2 part writing:

Ex. 177.



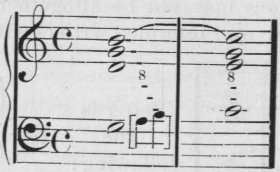
REMARKS.—The quarter notes in brackets have been inserted, not for the purpose of demonstrating that the ear actually hears consecutive octaves or 5ths, but merely to show in what manner these progressions may conceal such successive intervals. Their unbeautiful effect does not, in our opinion, arise from concealed 5ths or octaves, but rather, 1st, from a lack of dissimilarity, and, 2d, from the empty effect of 5th or octave (at Nos. 3, 4 and 5) immediately after the more satisfying harmony of a 3d or 6th, and the general emptiness at Nos. 1 and 2, Ex. 177. If independence of movement in each part is necessary in 4 part writing, it is evidently *absolutely indispensable* in *2 part* writing.

NOTE.—Successive Octaves and Fifths, two octaves and a twelfth or still further apart, come under the same rule, as if they stood at distances of 8 or 5 tones.

Covered Octaves and Fifths in 4 part writing.

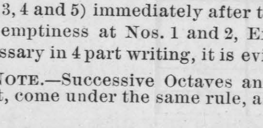
Not contrary to modern rule:

Ex. 178.



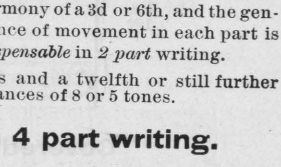
Better, however, is the following, the contrary movement doing away with all suspicion of cencealed 8ths:

Ex. 179.



The following covered octaves are not acceptable:

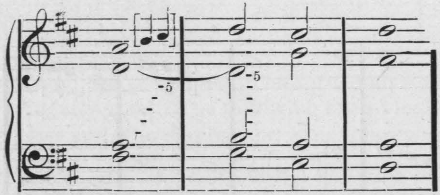
Ex. 180.



In this succession (Ex. 180) the two c^{s} (Soprano and Bass) are brought in so positively—below through the leading tone (**b**) and above through the progression from Dominant to Tonic—that the effect betrays the similarity in the movement of the two parts, and hence there is a lack of that contrast (or at least dissimilarity) necessary to a beautiful progression.

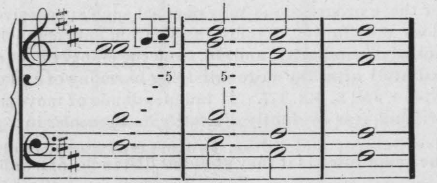
Covered Fifths not altogether bad:

Ex 181.



A better distribution of the parts, one entirely acceptable. is the following:

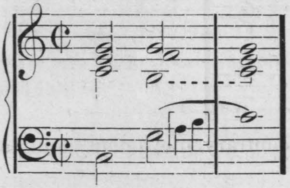
Ex. 182.



Covered Consecutive Unisons.

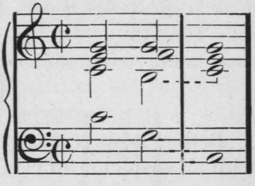
§ 80. Such progressions may not be altogether inadmissible, but they are not good in principle; well informed writers will avoid them.

Ex. 183.



Better is the following:

Ex. 184.



Incidental Consecutive Octaves.

§ 81. What has been said under § 75 of incidental 5ths, applies equally to incidental octaves.

§ 82. The reader is now fully prepared to enter upon the study of the art of 4 part writing. To master it in the least complicated manner possible, we propose to confine ourselves, for a short time, to combinations of the chords of the Tonic, Dominant and Dominant 7th. All other chord combinations require similar treatment, and will then be more easily understood.

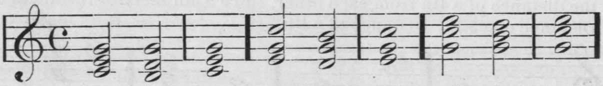
Four Part Writing.

§ 83. In 4 part writing we have the sum and substance of musical art. A perfect knowledge of its laws is necessary to the finished musician. There are many reasons why 4 part writing should occupy so important a place in the study of music, one that cannot be assigned to 3 part writing, nor to that of an indiscriminate number of parts. In 3 part writing, for instance, 4 toned chords cannot be admitted in their completeness, while in writing for more than 4 parts we would have more parts than is strictly necessary. Hence in 4 part writing music is divested of all superfluous tone effect, and the composer deals with the strictly necessary means, and no more, to create the beautiful in all its simplicity and perfection. The four principal male and female voices, Soprano, Alto, Tenor and Bass, may thus be represented and form a complete total, without the addition of other forces, that might obscure the perfect transparency and purity of an elegant musical style. Instrumentally 4 part writing is represented by a Quartette of stringed instruments: two Violins, a Viola and Violonello (or else upon such instruments as the Organ or Piano, upon which all styles can be represented). This style, however, is not of necessity strictly in 4 parts, since each of the stringed instruments is capable of producing two or even more tones at a time. Moreover, their extended compass, their unlimited facility of execution, the ease and rapidity with which they can take difficult and entirely unvocal (unsingable) intervals, demands, at the hands of the composer, a more fanciful, imaginative and ornamental treatment. A Quartette of strings must consequently be considered as the representative of the free style of 4 part writing, while a Quartette of voices represents the strict style. The vocal is at the same time the purest and most perfect style of 4 part writing. In our approaching studies we shall write partly in the instrumental and partly in the vocal style, but principally in 4 parts for either. The instrumental examples will be written for the Piano, and the vocal for the 4 principal voices.

Successions of the Chords of the Tonic and Dominant.

The chords of the Tonic and Dominant, without doubling any of their tones:

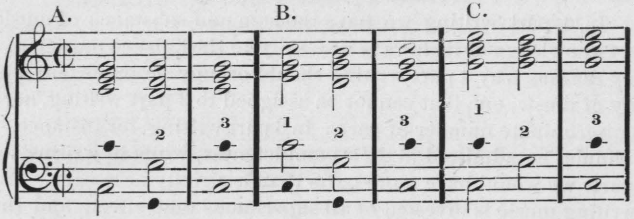
Ex. 185.



§ 84. The reader will readily perceive that these chords are of the greatest possible simplicity, but they are lacking in the strength, which true simplicity should have. This strength will be imparted to them, by adding the foundation tone to each chord, by means of a 4th part, the Bass.

Choice of a Bass.

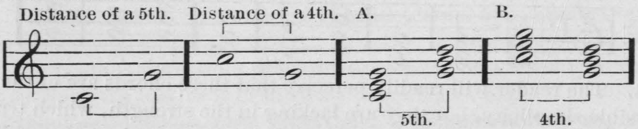
Ex. 186



The Bass indicated by black notes might have been substituted for the half notes, showing that the writer had here an opportunity of using some judgment and taste in selecting such tones for the Bass part as various considerations might indicate as the best. This is a point of importance, and we pause to explain it fully, with the advice that it should be kept in view hereafter, in more complicated cases.—Both the lower and higher **c** and **g** in the Bass of Ex. 186 are, with one or two exceptions, sufficiently near the upper parts to make it a question which of the two might be the best in each case. At A 1, the lower **c** is the best because the whole chord is made fuller and broader by it, besides of furnishing to the Bass a part different from that of the Tenor.*—At A 2, the upper **g** makes the chord more compact than the rather distant low **g**, and, taken in connection with the Bass tone of the following chord (A 3), the desirable contrary movement is obtained. Viewing the Bass part at A, as a total, the upper **c** would have been preferable below the third chord, but a lack of fulness would have resulted, and the progression of Tenor and Bass would have been very similar.—At B 1, the lower **c** would have been acceptable, but the Bass part, as a total, looks better with the upper **c**. This decides for the remaining Bass tones at B.—At C 1, there is possibly an even choice between the low and high **c**, at least instrumentally. Vocally the whole chord lies rather high for ordinary effect.—Such and similar considerations should guide the writer when arranging the Bass below a series of chords.

NOTE.—It may here be observed that when speaking of relationship in the 5th between two chords (such as the chords of the Tonic and Dominant), that they may also appear at the distance of a 4th from each other, since a 5th *inverted* results in a 4th.

Ex. 187.



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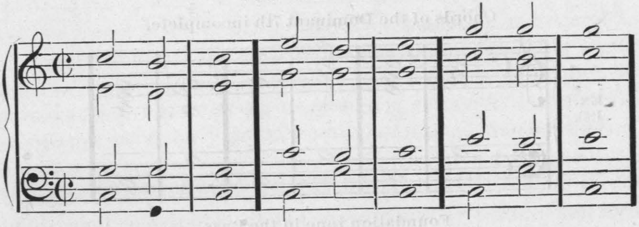
* Speaking of a single part, we shall always use the words Soprano, Alto, Tenor, Bass, even when the example is for the Piano.

In this sense the 5th and 4th are identical intervals. Thus the chords at B are related to each other in the 5th, although their foundation tones appear as intervals of 4ths. Strictly speaking we ought to say that a relationship exists between chords which are situated at the distance of a 4th or 5th, but as the result is identical as far as the relationship is concerned, the reference to one of these intervals suffices in technical language. Thus, for instance, the chords of the Tonic and Dominant are related to each other in the 5th, no matter whether we place their foundation tones at intervals of 4ths or 5ths.

We may now continue our study of the two chords in question.

The Chords of the preceding example arranged for Voices.

Ex. 188.

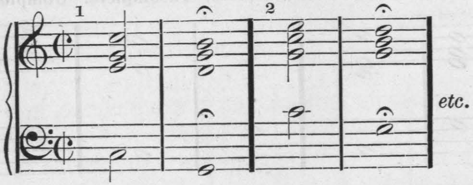


Authentic Perfect close.

§ 85. The Chord series at Ex. 188 have a well defined beginning and end, and the two last chords of each form what is termed the Authentic Perfect close or Cadence. This Cadence is particularly well adapted to end a piece, but it may also serve for a temporary stop in the middle of a piece.

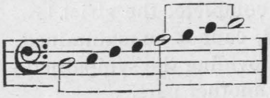
Authentic Imperfect close or Cadence.

Ex. 189.

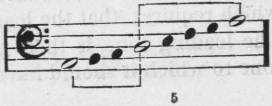


§ 86. The Authentic Imperfect or half close may serve for a temporary stop in the middle of a piece, but not for its final close.

NOTE.—The terms "authentic" and "plagal" (see Plagal) have their origin as musical terms in the ancient ecclesiastical modes, scales or tones, of which there were four authentic and four plagal. The four authentic church modes are ascribed to St. Ambrosius († 397). Gregorius the Great formed the four plagal from the four authentic. The authentic scales are based upon the Greek division of the octave into 5th and 4th:



and the plagal as a result of the former, upon the division of the octave into 4th and 5th:

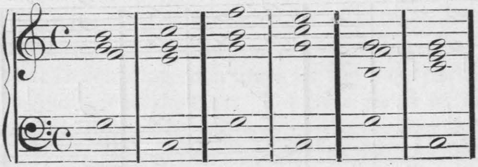


Successions of the Chords of the Tonic and Dominant 7th.

§ 87. When the foundation tone of the Dominant 7th is in the Bass, the chord is often incomplete, or else the *leading tone* must make an exceptional move by descending a third, unless a chord other than that of the Tonic were to follow. In that case the leading tone is entirely relieved of its obligation to ascend.

Chords of the Dominant 7th incomplete.

Ex. 190.

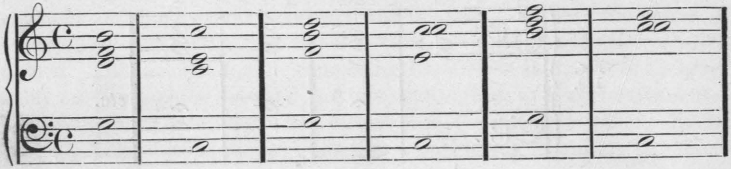


Foundation tone in the Bass.

In the instances of Ex. 190 the chords of the Dominant 7th must necessarily be *incomplete*, if we desire to end with a *complete* chord of the Tonic. The **4**-toned chord of the Dominant 7th can better spare a tone than that of the Tonic, which has but *three* tones. Nevertheless it often occurs that good writers will prefer to have a *complete* chord of the 7th and end with an *incomplete* chord of the Tonic.

PIANO. Complete. Incomplete. Complete. Incomplete. Complete. Incomplete.

Ex. 191.



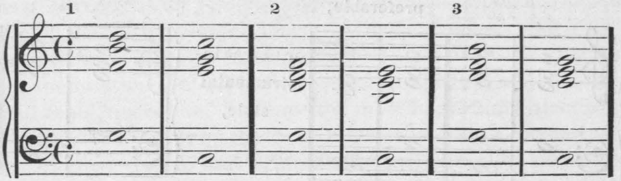
NOTE.—The last is less agreeable to the ear because of the prominent effect of the contracted upper parts (Diminished Triad) at a considerable distance from the Bass.

Exceptional Descending of the Leading Tone b Third.

§ 88. When it is desired to have both chords complete, the strict law, which requires that the leading tone should ascend, cannot be maintained. The leading tone is then permitted to descend, providing the sympathetic tone to which it should have moved, is supplied by another part.

Piano.

Ex. 192.



not good.

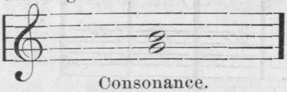
At Nos. 1 and 2 the Leading tone descends to **g**, a major 3d. This is allowable—Bach and other great writers have given us many such examples—because the sympathetic resolution tone **c** has been supplied by the part above. No. 3 is not so good, because the sympathetic tone **c** is given an octave lower, hence the identical resolution tone is not supplied.

Exceptional Ascending of the Subleading Tone.

§ 89. Good composers, while they will readily take the liberty regarding the exceptional descending of the leading tone, will be much more cautious with exceptional movements of the subleading tone (the 7th in the chord of the Dominant 7th). The 7th, **f**, (subleader) does not, like the leading tone proper, form a consonance with the foundation tone **g**,

Leading and Foundation Tones.

Ex. 193.

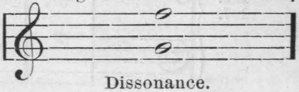


Consonance.

but a dissonance,

Subleading and Foundation Tones.

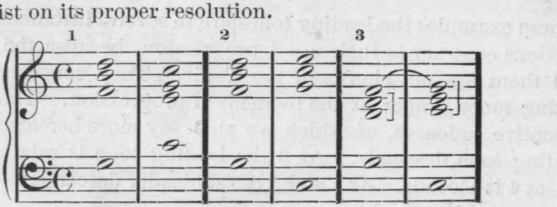
Ex. 194.



Dissonance.

hence they insist on its proper resolution.

Ex. 195.



No. 1 is correct.

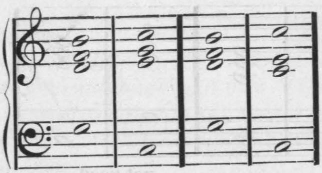
No. 2 is incorrect, or, at least, only admissible in free style of many parts.

No. 3 is doubly incorrect because, beside the ascending of the dissonant **f** (subleading tone), disagreeable successive 5ths result.

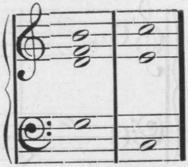
A little better is the following, because the dissonant **f** occurs in a less prominent part.

preferable,

Ex. 196.



or in free instrumental style,



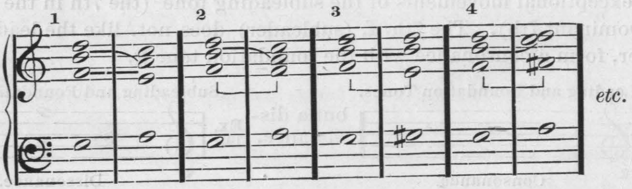
In free instrumental style, instances like the three preceding are frequently met with.

NOTE.—When we shall treat of the inversions of the chords of the Tonic and Dominant 7th, a notable combination will be given in which the subleading tone is permitted to ascend.

Chords of the Dominant 7th followed by Chords other than that of the Tonic.

§ 90. These successions are in advance of our present point of study; we give them for the sake of completeness.

Ex. 197.



In these examples the leading tones are in several instances made to move in directions contrary to their usual progression, because the chords which succeed them are not chords of the Tonic. They consequently cease to be leading tones proper at the moment of progression. These successions are deceptive cadences, of which we shall say more hereafter. At 1 and 2 the leading tone descends. At 3 the leading tone is retained in the next chord; at 4 it ascends. At 1 and 3 the subleader descends; at 2 it remains stationary; at 4 it ascends.

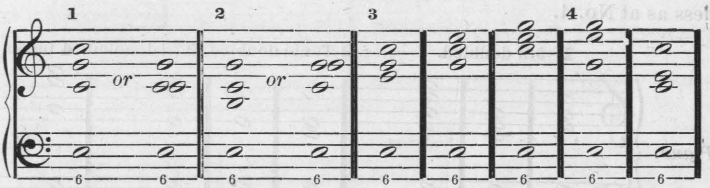
Inversions of the Chords of the Tonic and Dominant 7th.

§ 91. Each inversion of a 3 or 4-toned chord may appear in favorable and unfavorable positions. To acquire the desired skill, the student must become familiar with these differences. These favorable posision and combinations of inversions may be considered as common musical property, but they are not therefore common places. On the contrary, all good musical writers use them. Novelty or originality of style manifests itself rather in melody or modulation, but all authors preserve the favorable positions of the chords and their inversions. Perhaps the most important object of this work is to initiate the reader into the best manner of using the various chords, according to their nature and sympathetic inclination. No difficulty will afterwards be encountered in varying successions of chords, or composing in a style which, through practice, will become more and more flowing and natural.

Inversions.

Chord of fhe 6th for 4 parts.

Ex. 198.

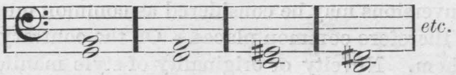


incomplete.

§ 92. The positions at 1 are the most euphonious, because the *Tonic* **c** is doubled. At 2, the 5th, **g**, is doubled, which tends to harden the effect of the chord. At 3, the 3d, **e**, is doubled, which weakens the chord, and is apt to lead to faulty successive octaves. Nevertheless instances abound in the writings of good composers, in which the 3d or 5th is doubled. This is generally done when the fluency of the parts, or general position of affairs require it. The chords in themselves are less beautiful than those in which the Tonic is doubled. The flowing style of the parts however is of such superior importance that a consideration of less importance, that of greatest beauty of a single chord, must often be sacrificed. The best and most pleasing examples are those in which perfect euphony can be associated to graceful fluency of the parts. The examples marked "incomplete" might occur incidentally through the fluent leading of the voices, but they would not be readily chosen as principal effects.

Several more instances might have been added, closer positions or wider dispersions. Then again, great variety can be obtained when writing for *more* than 4 parts.—Care should always be taken when writing for voices, to remain within their natural compass, and in instrumental music thirds too low in the Bass should be avoided,

Ex. 199.

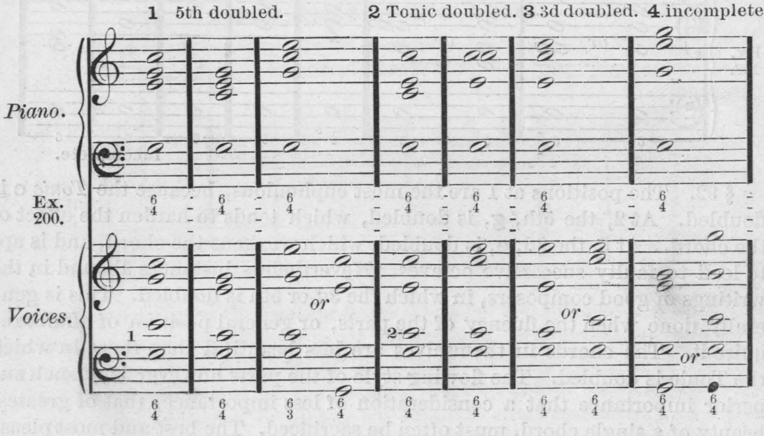


they having an indistinct growling effect.

Chord of the Fourth and Sixth of the Tonic.

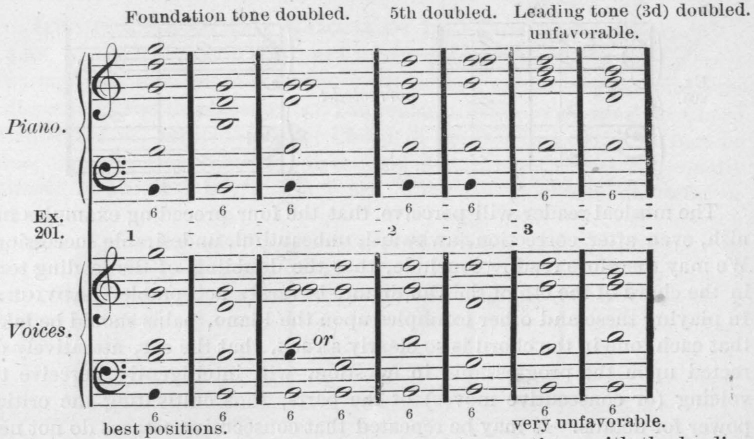
§ 93. The most favorable combination is that in which the bass tone (5th in the original chord) is doubled, as at No. 1, Ex. 200.—When the Tonic (c) is doubled, as at No. 2, the 4th (c) is rather too greatly reinforced.—The doubling of the 3d (e), as at No. 3, deprives the chord, to some degree, of its fulness.—The proper voicing of the parts may, however, frequently necessitate the doubling of these tones, or admit the chord in its incompleteness as at No. 4.

Ex. 200.



Chord of the Sixth of the Chord of the Dominant.

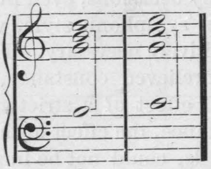
§ 94. The Chord of the 6th of the Chord of the Dominant differs materially from that of the Tonic, because it contains the leading tone, and is therefore a chord of motion. It is most euphonious when the foundation tone (g) is doubled; less rich with the 5th doubled, and dangerous with the 3d (leading tone) doubled. In the latter case consecutive octaves may easily arise. It is better and safer to avoid the doubling of the 3d in this chord.



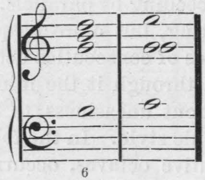
Ex. 201.

In the following four examples the chord in question, with the leading tone doubled, is combined to the chord of the Tonic, showing why unfavorable:

Ex. 202.

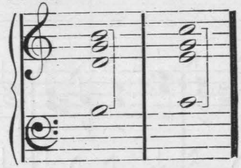


To avoid this fault, arising from the identical voicing of Alto & Bass, we cause the leading tone, sung by Alto, to descend a 3d, as follows:

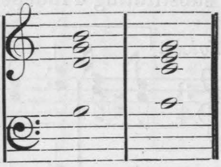


Consecutive octaves.

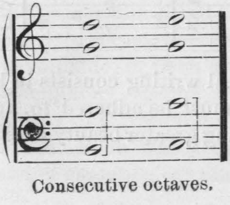
Ex 203.



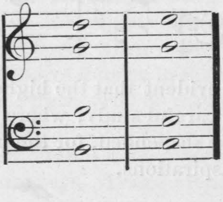
corrected:



Ex. 204.

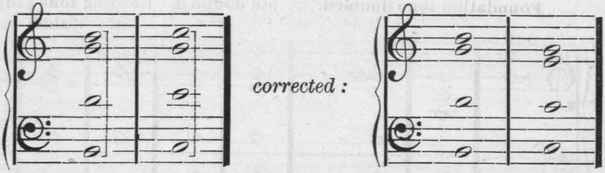


corrected:



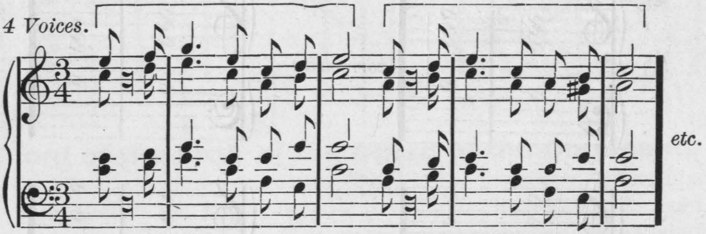
Consecutive octaves.

Ex. 205.



The musical reader will perceive that the four preceding examples furnish, even after correction, awkward, unbeautiful, undesirable successions. We may therefore readily conclude, that the doubling of the leading tone, in the chord of the 6th of the Dominant, is rarely acceptable. ADVICE:—In playing these and other examples upon the Piano, pains should be taken that each tone in the chord is so clearly struck, that the ear, attentively directed upon the progressions in question, will intelligently perceive the voicing (or consecutive moves) of the parts, thus cultivating the critical power for details. It may be repeated that consecutive octaves do not necessarily sound badly; the fault lies rather in the inelegance and poverty of writing, and lack of varied independence in the movement of parts, thus proceeding by parallels. Nay more, there are many occasions, even in 4 part writing, but more frequently in free operatic cr symphonic style, when a series of consecutiee octaves is beautiful and positively necessary. The ear, and through it the mind, cannot forever, in unrelieved constancy, listen without uneasiness to the rich and complicated effect of a strictly polyphonic style. In the following example, for instance, the effect of the consecutive octaves, occurring twice, at even periods, could not be improved upon by substituting 4 independent parts.

Ex. 206.



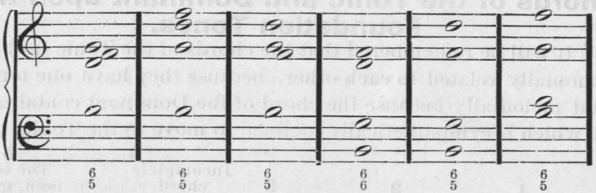
It is evident that the highest art of musical writing consists in knowing, through careful study, where the strict law must be adhered to, and where it may be suspended, for the purpose of gaining greater beauty or expressing higher aspirations.

Inversions of the Chord of the Dominant 7th.

§ 95. Of these we will give only the most favorable positions, for brevity's sake, as the reader has learned, by this time, to vary the combinations by dispersions and displacements. The remarks made concerning the Chord of the Dominant, apply also to the Chord of the Dominant 7th. It may be added, that positions favorable in the key of C, are not necessarily equally favorable in all other keys. There are differences in keys much higher or much lower.

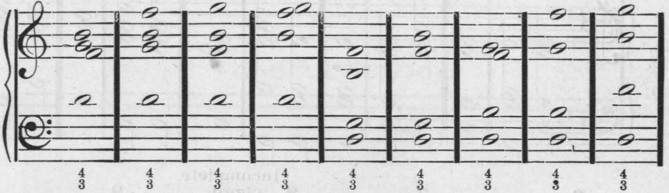
1st Inversion—Chord of the 5-6.

Ex. 207.



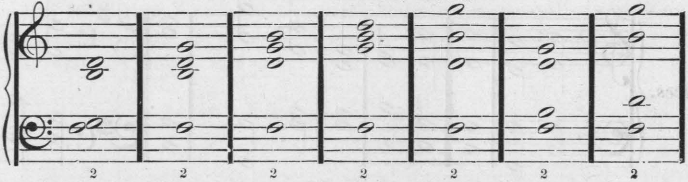
2d Inversion—Chord of the 3-4.

Ex. 208.



3d Inversion—Chord of the 2d.

Ex. 209.



It will be observed that the Bass tone is never doubled in the other parts, as that would render the chord incomplete. Such incomplete chords may however, as before stated, occur in successions of chords when rendered necessarily unavoidable, or even desirable, for the sake of fluency in the voices, or reasons of euphony. Some of the inversions of the chords lie rather high or low in the key of C. Such may be more favorable in other keys, those for instance of G or F, in which they are transplanted into a medium region. In the following examples we shall introduce those keys. Transparency and beauty in the merely physical sound of the harmonies, are considerations of care and weight to a musical writer when making choice of keys.

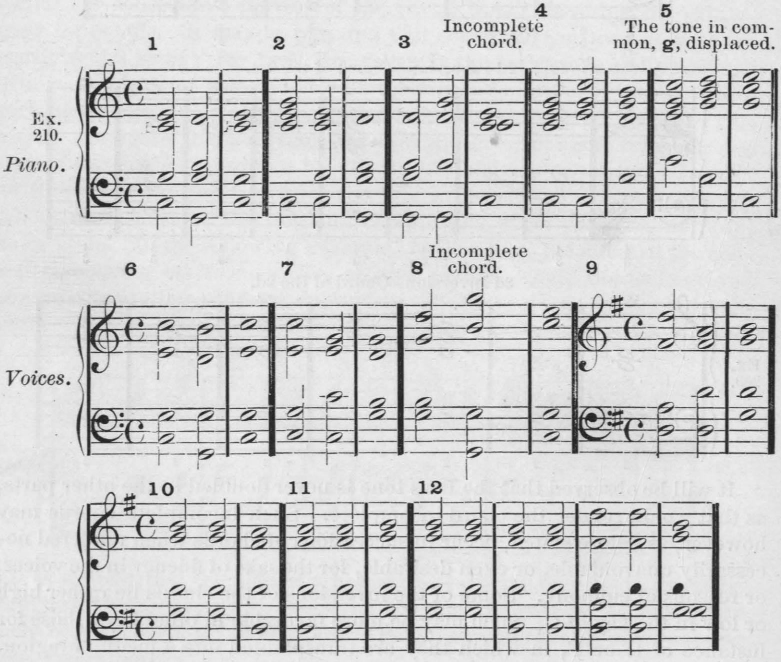
Successions of the Chords of the Tonic, Dominant and Dominant 7th with their Inversions.

§ 96. We have now advanced sufficiently far in the study of Harmony to enter upon the practice of chord series. If the reader has well digested the preceding explanations and rules, no difficulty will be experienced in advancing with the author at a rapid step.

Chords of the Tonic and Dominant upon their Foundation Tones.

§ 97. It will be remembered that the chords of the Tonic and Dominant are harmonially related to each other, because they have one tone in common, and melodially because the chord of the Dominant contains the leading tone which is sympathetically inclined to move to the Tonic.

Ex. 210.



EXPLANATIONS.—1. These chord series do not necessarily form the beginnings of pieces; they may occur anywhere, except that those closing with the Dominant could not *end* a piece. 2. The Bass moves throughout by foundation tones. 3. The leading tone invariably ascends half a step when the chord of the Tonic follows that of the Dominant. 4. Where the chord of the Dominant follows that of the Tonic, or *vice versa*, the tone which they have in common is retained in the same part, except at No. 5, where the melody **c d e** induced disjunct movement in the Alto and Tenor parts of the first two chords. 5. Conjunct movement generally prevails in the upper parts, except where the same chord occurs twice, in different positions, as at Nos. 2, 3, 4, 7, 8, 9 (and at 5 from displacement of the tone in common), when disjunct movement necessarily ensues. 6. The difference between the chord series for Piano and those for Voices lies in the strictness of compass for the latter. 7. Uniform, conjunct and disjunct movement of single parts, and direct, oblique and contrary movement between two parts, all occur frequently in the above examples. 8. Nos. 10, 11 and 12 show that the same identical chord structure may be repeated with advantage. 9. At Nos. 3 and 8 we have introduced incomplete chords to illustrate their occasional acceptability.

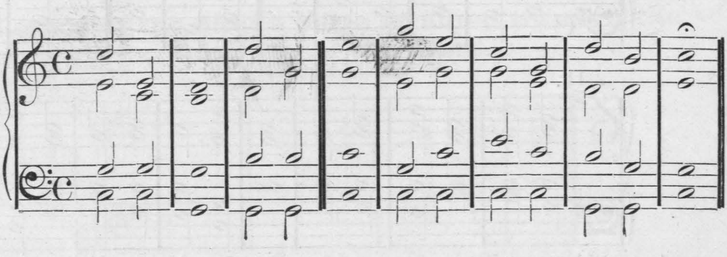
Fanciful Melody.

§ 98. Simple as the chord series of Tonic and Dominant are, they admit of varied fanciful melody. The inventive faculty of the student may be exercised by building upon the Basses given below, chords made agreeable in their succession by a good fluent melody for the Soprano.

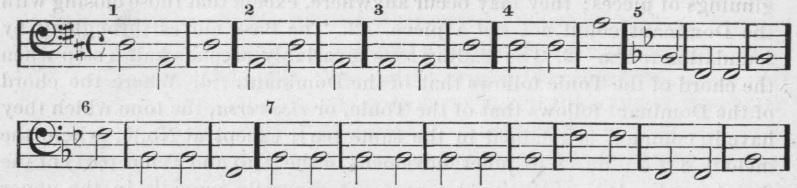
In the following Example the parts have been moved about, more or less, where the same chord is repeated. Thus variety of effect is insured, and the repeated chords are saved from monotony.

Fanciful Melody.

Ex. 211.

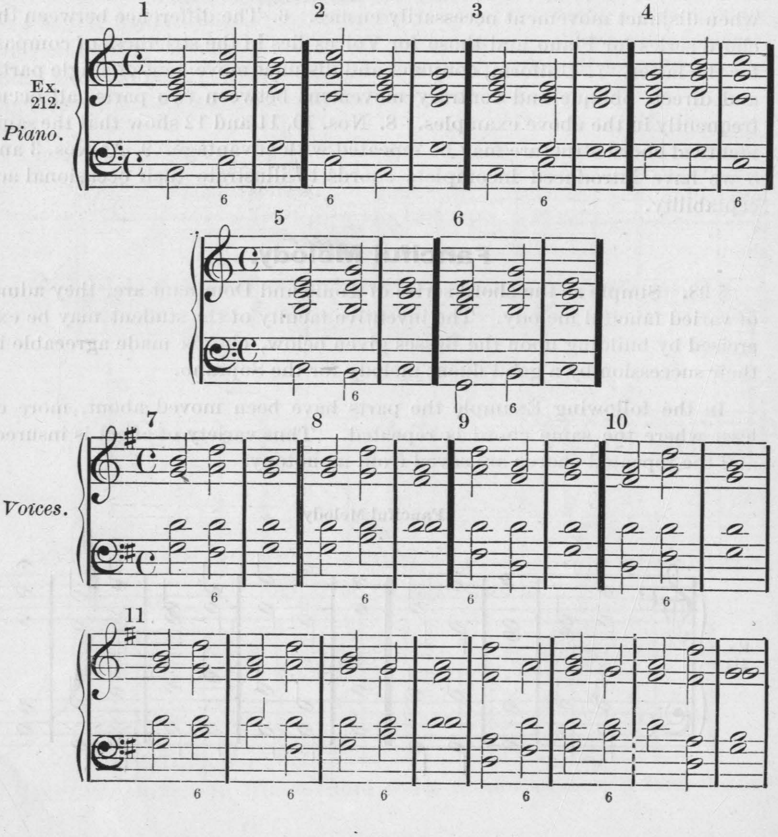


Basses for Exercises upon Foundation Tones.



The Chords of the Tonic and Dominant and their first Inversion, the Chord of the 6th.

Ex. 212.

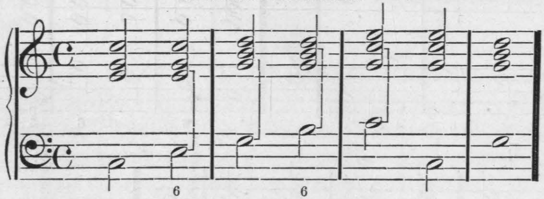


Explanations.—1. In the majority of the foregoing examples we have caused the chord of the 6th to appear in its most favorable combination of tones, that in which the foundation tone is doubled, as in Nos. 1, 2, 4, 5, 6, 7, 9, 10, and in several places in No. 11. 2. At No. 3, the 3d (e) is doubled with good effect. Below we append examples, in which the doubling of the 3d causes faulty progressions; such should be guarded against. 3. In no case has the 3d of the chord of the Dominant been doubled, that being the leading tone. The doubling of the leading tone occurs rarely in the works of the masters (that is, at 4 part writing). It does not sound well, and in unskilled hands, might readily produce consecutive octaves. The 3d of the chord of the Tonic, on the contrary, is frequently doubled, showing how essentially the chords of the Tonic and Dominant differ from each other, although exactly the same in the arrangement of their intervals. Elsewhere the chord of the Tonic has been called one of Repose, that of the Dominant one of Motion. 4. The doubling of the 5th (always referring to the chord of the 6th) occurs at No. 8, and in several places at No. 11. It is correct to double the 5th, but the effect is not so rich than that of chords in which the foundation tone is doubled. The manner in which the parts progress, often necessitates the doubling of the 5th, and perhaps it is as well that all chords should not be equally rich.

Faulty Progressions through the Doubling of the Third.

Consecutive Octaves.

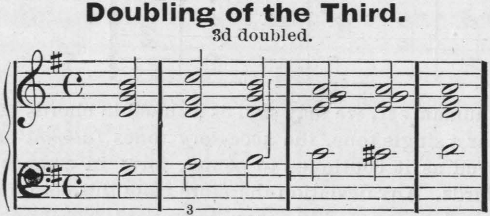
Ex. 213.



Fluency of the single parts attained through the Doubling of the Third.

3d doubled.

Ex 214.



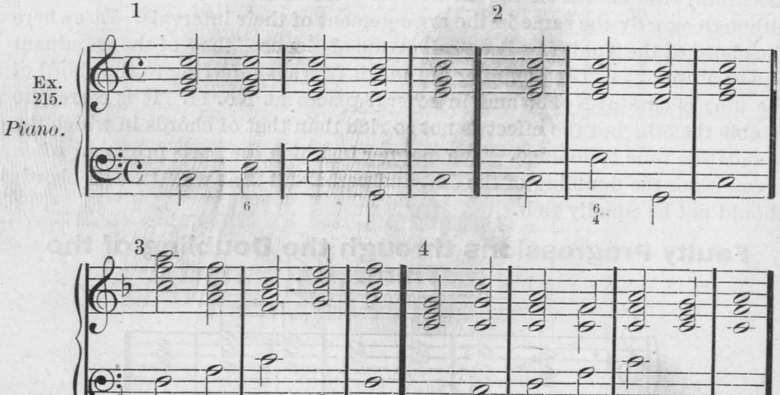
§ 99. The reader is reminded that when speaking of doubling the 3d, the 3d of a chord in its original position is meant: in Ex. 214 the 3d is **b**, of the chord **g b d**. The fluency of the Soprano and Bass, and the other parts in consequence, could not have been attained except through the doubling of the 3d. This shows that there are cases in which the doubling of the 3d is not only a necessity, but a virtue.

NOTE.—Observe that the chord of Ex. 214 in which the 3d is doubled, is the chord of the Tonic (Key of G), not the chord of the Dominant with its leading tone.

The Chord of the 4-6 of the Tonic.

The chord of the 4-6 properly prepared and resolved (see paragrapns 67, 68, 69 and 70):

Ex. 215.



§ 100. The human ear, we may say, is attuned to chords built of thirds‘ for when we hear a single tone, the accessory tones (*aliquot* or overtones), which are evolved as it continues to sound, form in essence just such a chord built of thirds. Any deviation therefore from this combination can be but temporary, and must speedily return to a chord, based upon a third, to satisfy the ever present demand for a permanent chord of repose, dwelling within our ear. A chord of the 4-6 then, resting, as it does, upon a 4th, is a deviation from the natural chord, and must be followed by one resting upon a 3d, or, in technical language, it must be *resolved.* The chord of the 4-6 may therefore in a certain sense be regarded as one of dissononce, and the tone which causes the *quasi*-dissonance, is the 4th, The strictly correct resolution takes place by having this 4th descend half a step, as at Ex. 216, No. 1 (motion from 3d to 4th chord). From the same reasons the ear may delight for a length of time in being led away through mazes of consonance and dissonance, but it cannot be satisfied unless the musical piece returns finally, at its closing point, to the chord of the Tonic.

Preparation of the Chord of the 4-6

see §§ 67, 68, 69 and 70.

NOTE.—At Ex. 215, No. 3, the resolution of the dissonant 4th (**f**) is free, the resolution tone (**e**) being supplied by the Soprano.

Incidental Chord of the 4-6

see § 70 with Exs. 149 and 150.

§ 101. It is of the utmost importance that the reader should understand the difference between the chord of the 4-6 which is properly resolved (and generally prepared), and that which is merely an *incidental* chord of the 4-6.

1. The chord of the 4-6 of the Tonic (second inversion) is that which, with some few exceptions, appears prepared and resolved.
2. The chord of the 4-6 of the Dominant is that which appears *incidentally*.

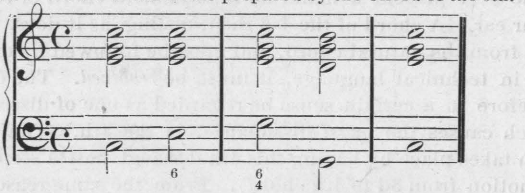
These two chords of the 4-6 contribute to show the essential difference between the chords of the Tonic and Dominant. From the salient characteristics of these two chords of the 4-6 we conclude that that of the Tonic is the most important. That of the Dominant is merely a link chord, and as such does much less prominent service than the original position and first inversion (chord of the 6th) of the same chord. That (4-6) of the Tonic is consequently used much more frequently than that (4-6) of the Dominant.

Preparation of the Chord of the 4-6.

§ 102. There are many ways of preparing (introducing, ushering in) the chord of the 4-6. At the present we are dealing with two chords only, Tonic and Dominant, and we confine ourselves to explain the particular kind of preparation obtainable under the circumstances. Other kinds of preparations will be explained in their proper place. In the following examples the chord of the 4-6 is prepared by the chord of the 6th, or by the chord of the Tonic in its original position. Both these chords rest upon a 3d.

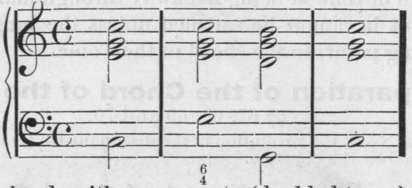
1. Chord of the 4-6 of the Tonic prepared by the Chord of the 6th.

Ex. 216.



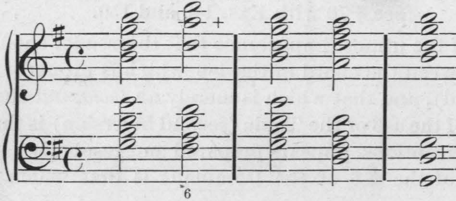
2. Chord of the 4-6 prepared by the Chord of the Tonic.

Ex. 217.



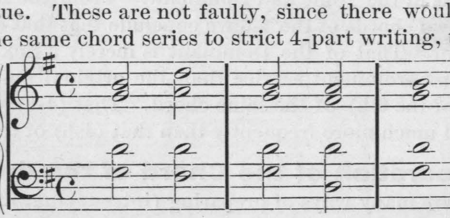
An example of chords with many parts (doubled tones):

Ex. 218.



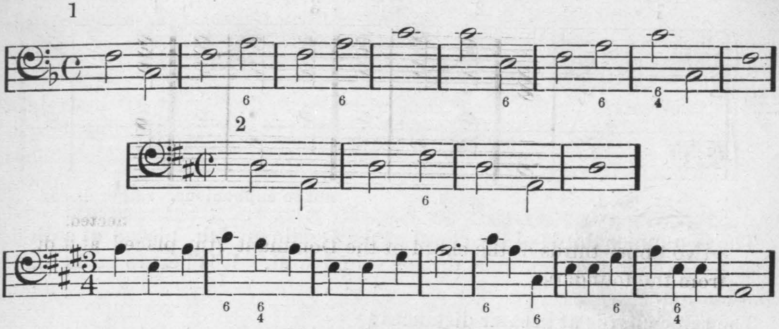
Explanations.—1. In these chords the original tones have been several times doubled. In consequence of this successive octaves and fifths, in the same parts, ensue. These are not faulty, since there would be none were we to reduce the same chord series to strict 4-part writing, thus:

Ex. 219.



3. In the chords marked with a cross, at Ex. 219, the third has been omitted. In the chord of the Dominant, the f sharp omitted is the leading tone. Its omission in the Treble improves the general sound. In the chord of the Tonic, the omission of the 3d (b) gives the entire chord transparency. It has been mentioned before that a Third, low in the Bass, has a growling effect, which is not agreeable.

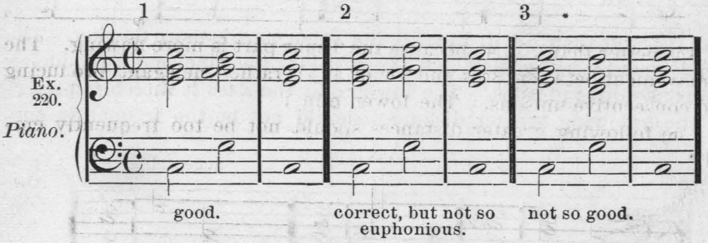
Basses for Exercises with Inversions—Write both for Piano and Voices:



The Chord of the Tonic and Dominant 7th upon their Foundation Tones.

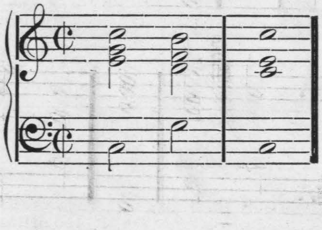
§ 103. The chord of the Dominant 7th contains the leading and subleading tones. 1. The Leading ascends in preference. The Subleader descends in preference.

Ex. 220.

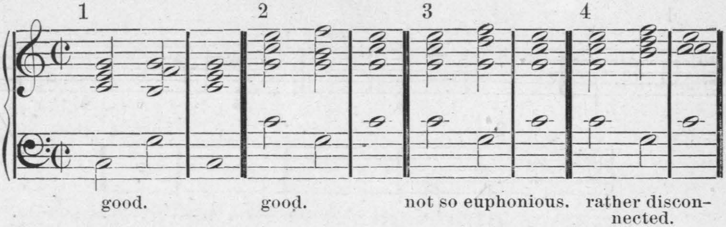


No. 3 is not so good, because the Subleader is made to ascend. It could have been managed as follows, when however the closing chord is incomplete:

Ex. 221.



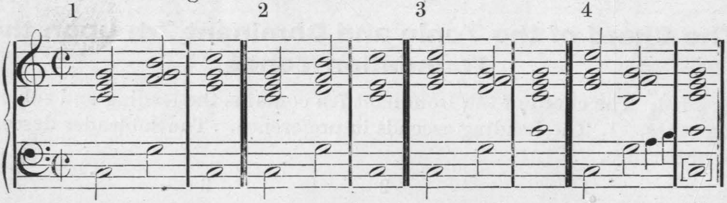
Ex. 222.



The two upper thirds of the chord of the Dominant 7th, placed at a distance from the foundation tone, do not sound well. It is best to avoid that combination.

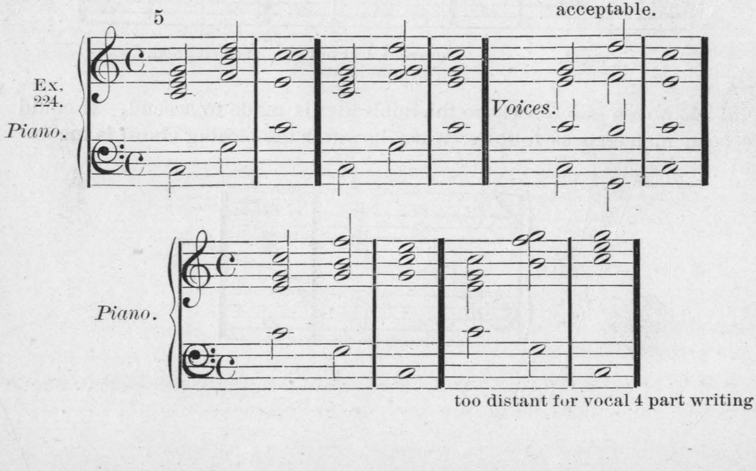
The same chords at greater distances:

Ex. 223.



No. 3 is better than No. 4, because the Tenor part is more flowing. The direct movement between Bass and Tenor at 4 is rather inelegant, producing covered consecutive unisons. The lower **c** in the Bass is therefore preferable. The following greater distances should not be too frequently employed.

Ex. 224.

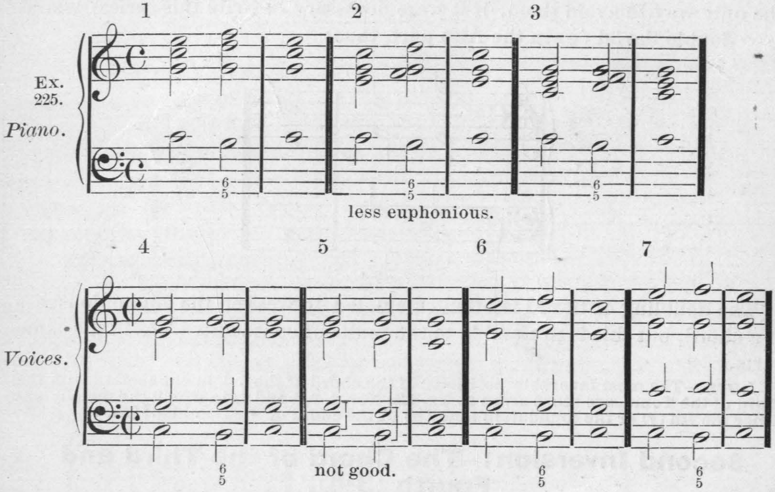


The reader has observed that when the chords of the Tonic and Dominant 7th rest upon their foundation tones, either the one or the other must be incomplete so long as the leading tones move according to their natural preference. To have both chords complete, these natural preferences must be sacrificed. Hence the frequent exceptional moves of the leading tones for the purpose of obtaining full harmonies.

Inversions of the Chord of the Dominant 7th.

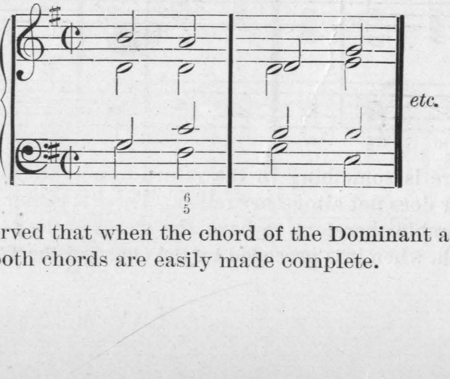
FIRST INVERSION—CHORD OF THE 5-6.

Ex. 225.



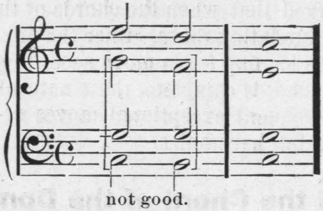
§ 105. With inversions the chords cannot easily move by greater distances; one or two parts may, however, occasionally move freely:

Ex. 226.



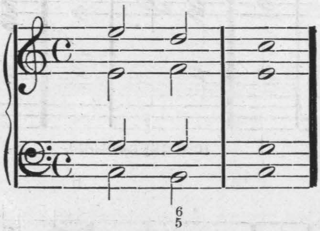
It is to be observed that when the chord of the Dominant appears in one of its inversions, both chords are easily made complete.

Ex. 227.



The consecutive 5ths between Bass and Alto make this progression faulty. The only way to avoid them, if it were necessary to write this series, would be to double the 3d (**e**) in the Alto part, thus:

Ex. 228.

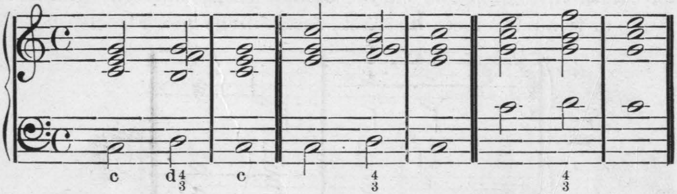


The doubling of the 3d is often calculated to weaken the euphoniousness of a chord, but this is preferable to the faults of consecutive 5ths in the same parts.

NOTE.—The most favorable positions of the chord of the 5-6, in connection with the chord of the Tonic, are those given at Ex. 225, Nos. 1, 3, 4 and 7, in which the melody has either the 7th (**f**) or the foundation tone (**g**) of the chord of the Dominant 7th.

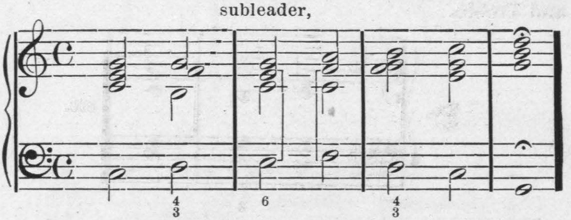
Second Inversion: The Chord of the Third and Fourth (3-4).

Ex 229.



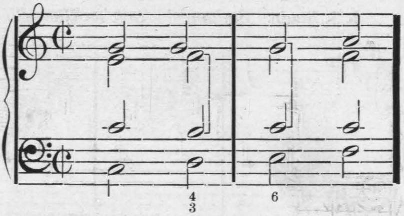
§ 105. There is something in the return to **c** by the Bass **c d c**, which a cultivated ear does not altogether relish. There is rather a sameness about it. It is preferable therefore to have the chord of the 3-4 followed by the chord of the 6th, when it is preceded by the chord of the Tonic in its original position. This however will result in the doubling of the 3d in the chord of the 6th, which may or may not be acceptable; at all events caution should be exercised to avoid consecutive octaves.

Ex. 230.



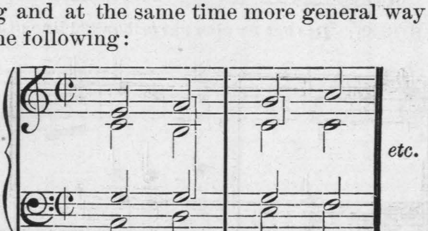
In this Example (230) the consecutive octaves, as indicated in the second measure, are the result of the doubling of the 3d. The student should be ever watchful not to fall into this error. It can only be avoided, however, by allowing the subleader (f) to *ascend*. This necessity has led to the universal acceptation of the *ascending* of the subleading tone in this particular dilemma. It is true that a new difficulty arises from this license, that of consecutive 5ths, but all the great masters have preferred to incur the blame of this generally censurable progression rather than tolerate consecutive octaves. The resulting consecutive 5ths, moreover, are unequal (see Unequal Consecutive Fifths), and do not form the principal effect of the two successive chords in which they occur (see § 73).

Ex. 231.



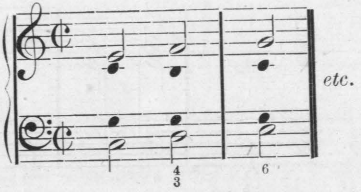
A more striking and at the same time more general way of introducing this succession is the following:

Ex. 232.

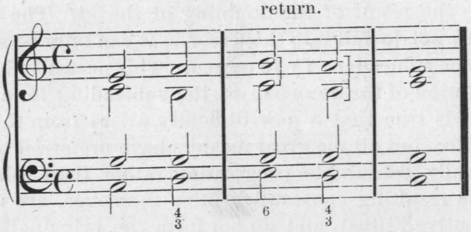


In Ex. 232 the 5ths are more visible to the eye, on paper, but to the ear they do not even here form the principal effect in the succession. That which strikes the ear most impressively, is the pleasant succession of thirds formed by Bass and Treble.

Ex. 233.



The return by the same chords is likewise generally used:

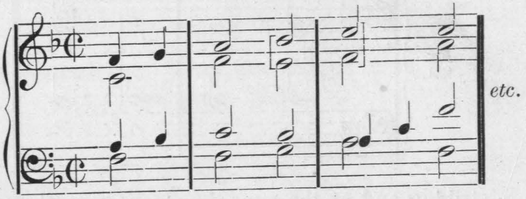


Ex. 234.

We append a few examples taken from **Bach** and **Beethoven**.

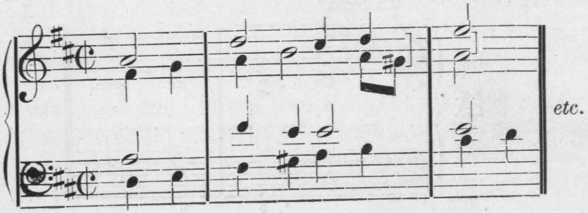
J. S. Bach: *So lang ein Gott im Himmel lebt.*

Ex. 235.

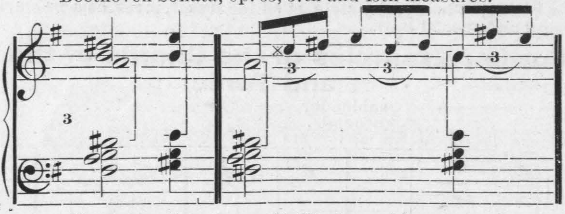


J. S. Bach: *Das hat Er alles uns gethan* (3d line of 1st stanza).

Ex. 236.

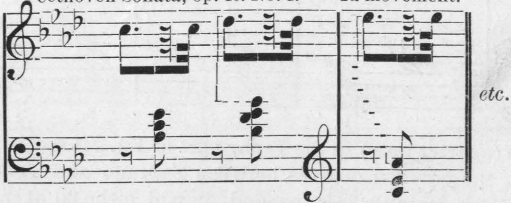


Beethoven Sonata, op. 53, 37th and 45th measures.



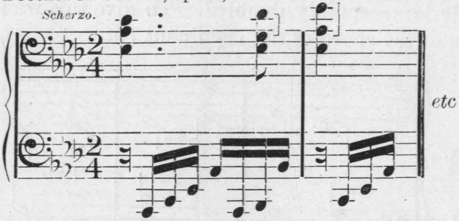
Ex. 237.

Beethoven Sonata, op. 10. No. 1. 2d movement.



Ex. 238.

Beethoven Sonata, op. 31, No. 3. 2d movement.

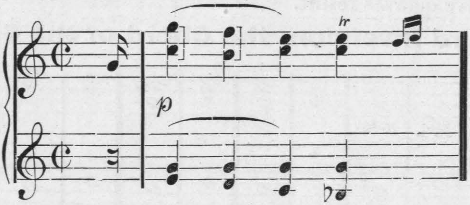


Ex. 239.

In all these examples the 5ths are incurred and the subleader is allowed to ascend.

In the following example the *return* by the same chords is illustrated:

Beethoven Sonata, op. 14, No. 2.—Second movement.



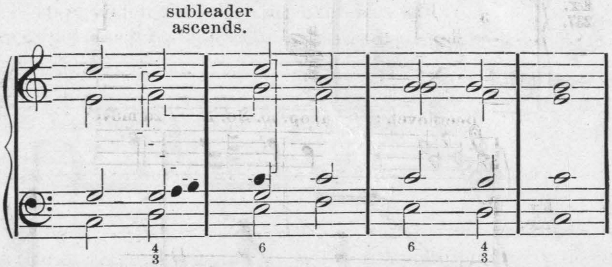
Ex. 240.

NOTE.—It may here be observed that while instrumental writing is generally regarded as representing the free style, it is nevertheless subject to the laws of *strict 4 part writing* the moment this style is assumed, were it only in a series of a few chords On the other hand in vocal writing (representing the strict 4 part style), the composer may at any time assume the free style and its attendant greater license when introducing five, six or more voices. Finally, any style, even the freest, must, as a whole, remain subject to the general and special laws.

Further Examples of the Chords of the 3-4 and Tonic.

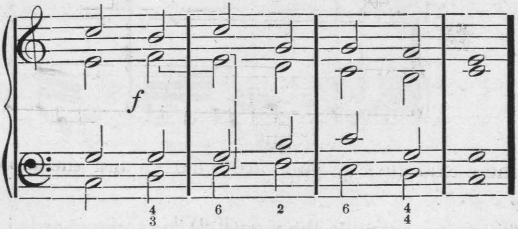
Ex. 241.

Voices.



The **c** (quarter note) in the Tenor part of Ex. 241 would not have been acceptable, the covered octaves between Soprano and Tenor being too perceptible. An example is appended, in which the 3d of the chord of the 6th of the Tonic is acceptably doubled. To give this we had to anticipate the 3d inversion of the chord of the Dominant 7th.

Ex. 242.

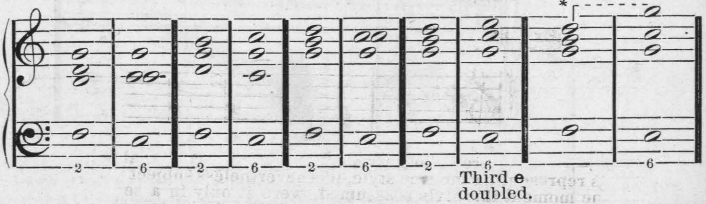


Here the subleader (**f**) descends according to its natural inclination, yet no consecutive octaves result.

Third Inversion—the Chord of the Second.

Ex. 243.

Piano.



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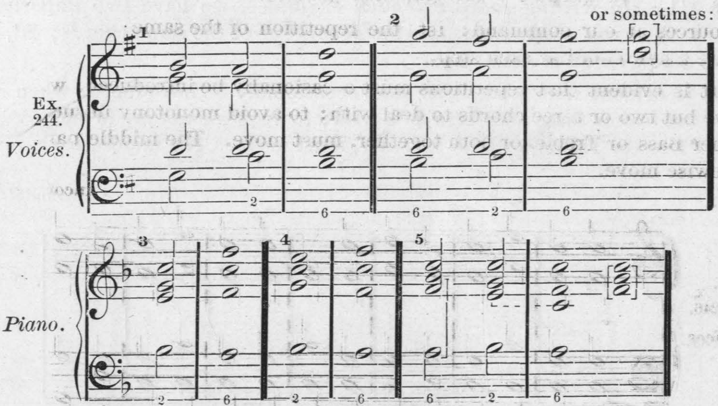
* Avoiding the doubling of the 3d by the melodious and very serviceable move to **g** in the treble.

§ 108. The chord of the second (2) is a very useful and beautiful chord; it has an originality of its own, and, we might almost say, a distinguished individuality. It contributes largely to make the bass flowing, i. e., imparting to it conjunct movement.

Other Examples of the Chord of the Second.

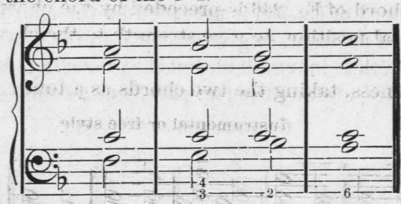
§ 109. At No. 5 of Ex. 244 the 3d (**a**) is doubled acceptably, and the leading tone (**e**) is allowed to descend to avoid a repetition of the doubling of the 3d.

Ex. 244.



In the following example the chord of the second is brought in by its kindred inversion, the chord of the 3-4.

Ex. 245.



Examples combining all the previous Chords.

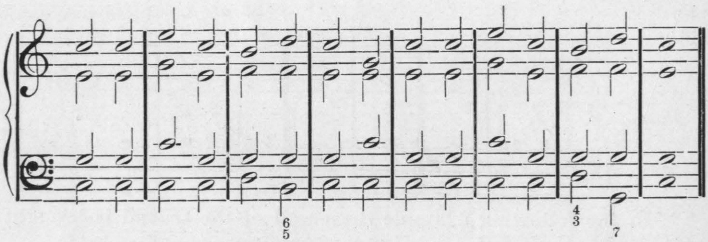
§ 110. We have now arrived at a point where very pretty artistic work can be done, the manyfold inversions at our command permitting a flowing and beautiful Bass. We desire at present to initiate the reader into an elegant and finished style by means of two simple chords, or at least three, if we regard the chord of the Dominant and Dominant 7th as different chords. In this manner we may hope to accomplish so important an object. If we succeed in impressing the student lastingly with the universal system of using and managing the favorable positions and combinations of chords, the initial step, which the following exercises will conclude, will have been well and securely taken. Basses will be furnished for practice of similar chord series.

Repetition of the same Chords.

§ 111. In writing more extended examples, we have two important resources at our command: 1st, the repetition of the same chords; 2d, to write a new chord at each step.

It is evident that repetitions must occasionally be introduced, when we have but two or three chords to deal with; to avoid monotony in such cases, either Bass or Treble, or both together, must move. The middle parts may likewise move.

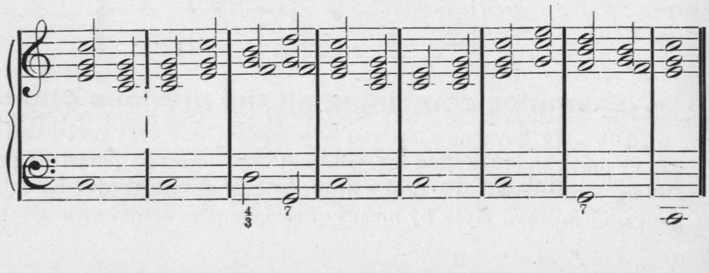
Ex. 246.



1. The last chord of Ex. 246 is preceded by the chord of the Dominant 7th in its fundamental position, to give strength to the close. 2. This last chord of the Dominant 7th is incomplete, but the preceding chord of the 3-4 invests it with completeness, taking the two chords as a total.

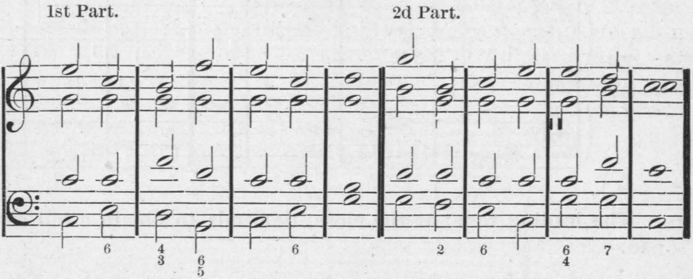
Instrumental or free style.

Ex. 247.



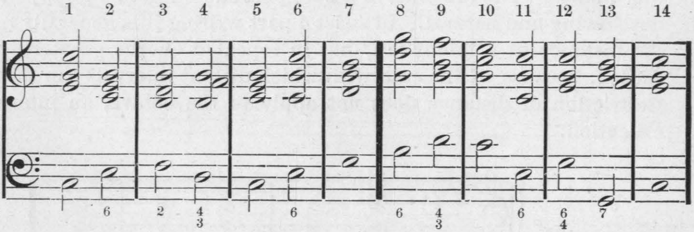
Repetition of the same Chord, but varied by Inversions.

Ex. 248.
Voices.



§ 112. Explanations.—1. The 1st Part ends with the authentic imperfect, the 2d with the authentic perfect Cadence or close. 2. Observe the movements of each single part. In the repetition of chords disjunct movement becomes a necessity to avoid monotony. 3. Near the close of the 2d Part the chord of the 4-6 is introduced, prepared by the chord of the Tonic, in its original position, resting upon a 3d.

Ex. 249.
Piano.

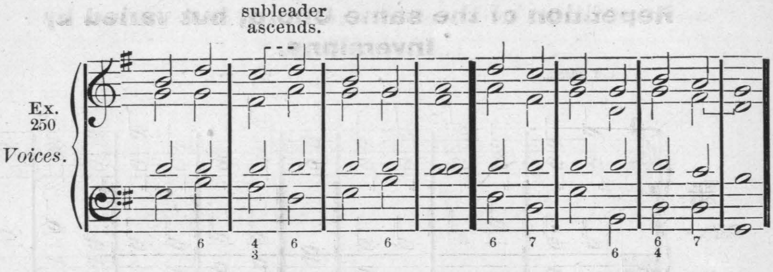


Explanations.—1. In the 2d chord the third (e) is doubled, but no consecutive octaves result, each e moving in a different direction. 2. Had we doubled the third in the 6th chord, parallel octaves would have ensued between Tenor and Bass from the 5th to the 6th chord. We therefore refrained from doing so. No 12 is a chord of the 4-6, prepared by the chord of the 6th, which rests upon a third.

The Subleader may ascend in the same Chord.

§ 113. In the following example the subleader may ascend, because the same chord continues and resolution is effected when the chord of the Tonic comes in.

Ex. 250

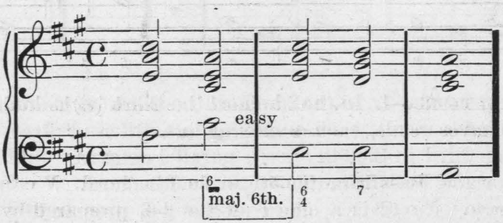


The leading tone, at the close, descends to obtain a full chord for the end.

Distance of Interval limited in the Bass.

§ 114. The Bass naturally serves as support to the tone structures above. Its deep tones, slow of vibration compared to those of the Treble, move with corresponding moderation. In consequence of these distinguishing features, the Bass is invested with dignity, and the writer should do nothing to impair this quality. The intervals of a Bass part should not be jumpy or awkward, but flowing and natural. In strict 4 part writing it is generally restricted to the distance of a minor 6th, but in repeated chords greater license is accorded, because of the ease with which distant intervals can then be taken. Restriction of distance does not apply to the octave, an interval easy of execution.

Ex. 251.

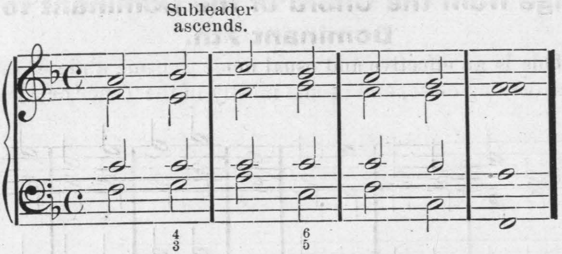


Observation.—The restriction as to distance of interval *in any part* is principally based upon two considerations: 1st, The distant interval should not present great difficulty of execution, that is, it should not be unvocal and unnatural; 2d, It should not be unbeautiful. Diminished and augmented intervals should be used understandingly. In Solo passages much greater license is accorded to any part.

EACH STOP A NEW CHORD.

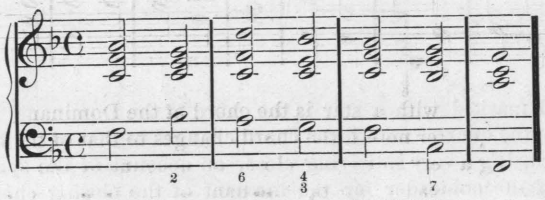
Ex. 252.

Voices.



Ex. 253.

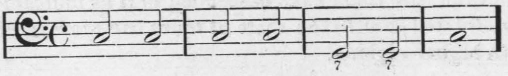
Piano.



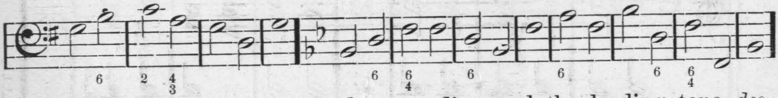
BASSES FOR SIMILAR EXERCISES.

1. Repetition of the same chords.

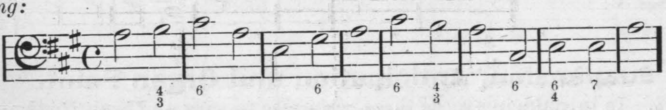
Instruction.—When the Bass consists of repeated notes, like the following, one or more of the upper parts (especially the melody) should execute a varied series of tones.



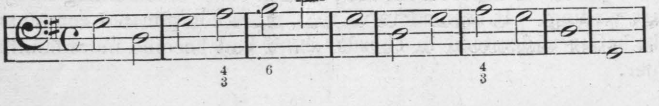
2. Repetition of the same chords, but varied by inversions:



3. Example with the subleader *ascending*, and the leading tone *descending:*



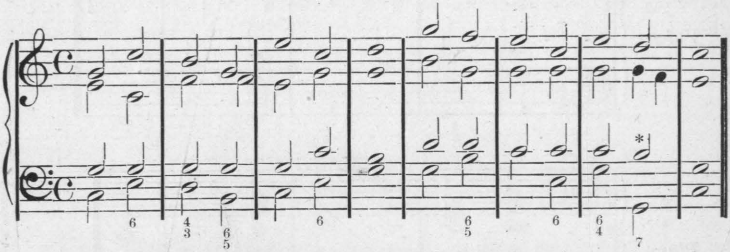
4. Each step a new chord:



Change from the Chord of the Dominant to the Dominant 7th.

§ 115. This is an effective and usual mode to bring a piece, or part of a piece, to a satisfying close, and occurs mostly in the Tenor or Alto part.

Ex. 254.

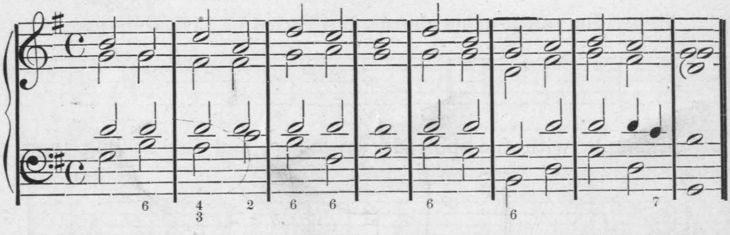


The chord marked with a star is the chord of the Dominant, but when the Alto sings the quarter note **f**, the chord changes to that of the Dominant 7th, thus producing a very satisfying close, on account of the sympathetic inclination of the subleader for the mediant of the closing chord of the Tonic. In this case the leading tone **b** in the Tenor is allowed to *descend* in order to have the last chord appear in its completeness.

THE SAME CHANGE OF CHORD IN THE TENOR.

§ 116. The chord at the close is incomplete. It seemed full enough without the 5th **d**, but the Alto *could* have descended to **d** as indicated by parenthesis. Chords situated low in the scale of tones can more easily spare the 5th than those in higher regions.

Ex. 255.



Suspension, Anticipation and Organ Point.

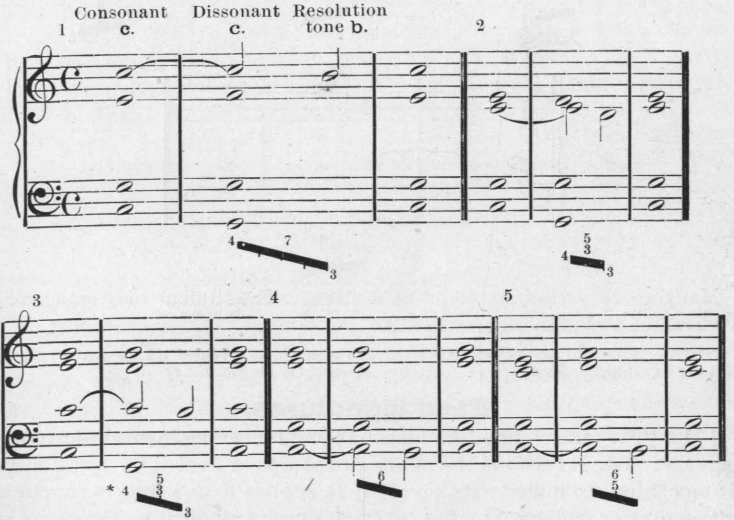
§ 117. In introducing these three resources to vary and beautify the progression of parts, we depart from the common order of unfolding the system of 4 part writing. It seemed to us that more complicated combinations would be better understood in chords which had become more familiar to the reader.

Suspension.

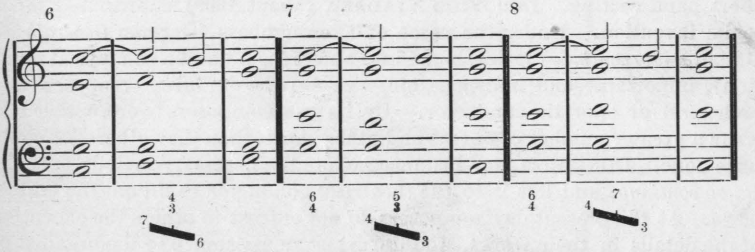
§ 118. Suspension takes place, when any tone of a chord, not originally in accord with the next following chord, is retained in the latter. Thus a momentary discord, requiring resolution, results. Resolution is effected by having the dissonant tone descend or ascend half or a whole step. The descent by half a step is the most frequently occuring mode of resolution.

SUSPENSION OF THE TONIC.

Ex. 256.



NOTE.—The suspension tone is generally tied, but it may also be struck again, or sung with a separate syllable.



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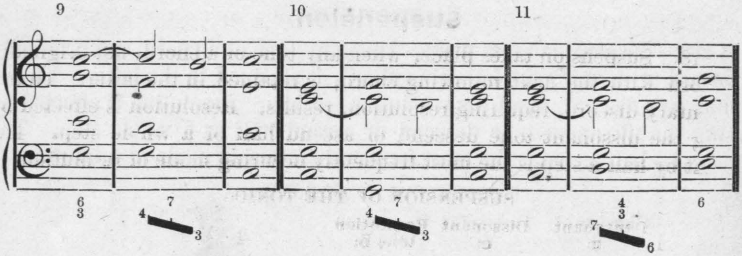
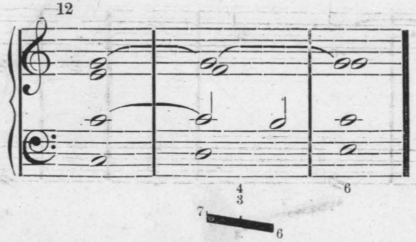
* For explanation of Bass Signatures see § 119.





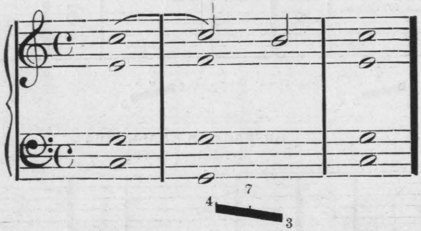
Many more variations could be written. The student may endeavor to invent some and gain practical skill.

NOTE.—It should be understood that the examples under § 118 do not necessarily form the beginning of a chord series; they are merely fragmentary.

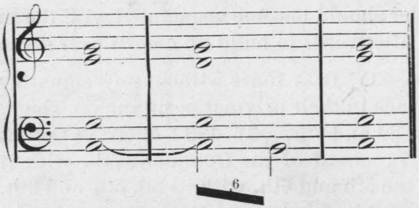
Bass Signatures.

§ 119. The term "Signature" has a twofold meaning in musical technical language. 1st, It refers to the number of sharps or flats at the beginning of a composition, to indicate its key; 2d, It applies to the figures (numbers) written over or under Bass notes for the purpose of indicating the chord implied. Formerly the Bass Signature was extensively employed as a sort of short hand writing. LUDOVICO VIADANA (about 1600) contributed much to its invention. Under the name of Thoroughbass (German *Generalbass*, Italian *Basso continuo*) it developed into an art (as a branch of musical notation), important—and indispensable even—to the organist, composer, and orchestral or operatic conductor. By its use composers were enabled to write a greater number of operas and other works than they otherwise could have done. DONIZETTI, for instance, wrote the necessary melody over the *Basso continuo*, and left it to the theatrical conductor to fill out the middle parts. At the present day composers do not entrust to others the execution of the details in their works, and the art as an assistance to the organist or performer has nearly or entirely died out. In this treatise we retain of it only that which is needful to the student in the acquisition of a knowledge of Harmony. With this object in view, we have written the signature under Bass notes over which the chords have been given in full. We merely desired that the reader should become acquainted with the proper mode of signature, to be able afterwards to build up chords over given basses.

EXPLANATIONS.—1) Bass tones without any signatnre, or with the figures **3-5**, imply triads in their original position. 2) The figure **6**: the chord of the 6th, with its 3d and 6th. 3) **4-6**: chord of the 4th and 6th, with its 4th and 6th. 4) **7**: chord of the Dominant 7th, with its 3d, 5th and 7th. 5) **5-6**: chord of the 5th and 6th, with its 3d, 5th and 6th. 6) **3-4**: chord of the 3d and 4th, with its 3d, 4th and 6th. 7) **2**: chord of the 2d, with its 2d, 4th and 6th. 8) An accidental ♯, ♭, or ♮, when placed under the Bass note without other signature (number) implies that the 3d should be sharped, flatted or made natural. 9) An accidental before a number, as, for instance, ♭**7**, or ♯**5**, or ♮**4**, implies the alteration of the interval so marked.—[Cross lines for a similar purpose, dashed figures, etc., we prefer not to make use of.] —10) A downward oblique line ⟍ implies a suspension with downward resolution. 11) An upward oblique line ⟋ a suspension with upward resolution. 12) To obtain the correct chord over a bass tone, think of the implied chord in its *original position*, as indicated by **the** figures (or in the case of fundamental triad, by the absence of figures). **It** then remains to distribute the tones, thus obtained, according to circumstances or requirement. 13) Besides the indicated suspension, the *general* chord is indicated by a figure in the centre of the measure, under the Bass, as for instance (like No. 1 of Ex. 256):



EXPLANATION.—In the 2d measure the general chord is that of the Dominant 7th (indicated in the centre, below the Bass, by the figure 7), but it contains a suspension tone, namely **c**, the 4th, counting up from the Bass tone **g**. This 4th is indicated by the figure 4 below the Bass, and moves downward, to the 3d of the chord, thus: 4⟍3. The remaining examples are similar, with the exception of those in which the suspension occurs in the Bass part, as for instance (like No. 4 of Ex. 256):

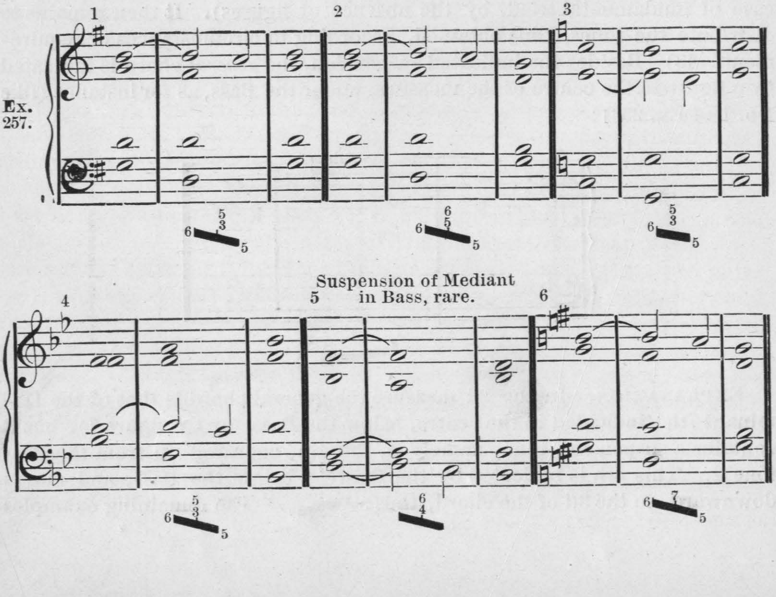


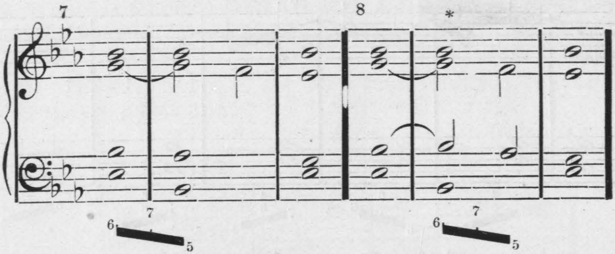
EXPLANATIONS.—In cases like this no figures accompany the downward line ▬, since the suspension and resolution tones form the Bass part.

Suspension of the Mediant.

§ 120. The suspension of the Mediant materially differs from that of the Tonic, although it is the same in principle. It does not produce a discord in the plain chord of the Dominant, but it does in that of the Dominant 7th. In Nos. 1, 2, 3, 4, 5 and 8 of Ex. 257, no discord is caused by the suspension of the Mediant.

Ex. 257.

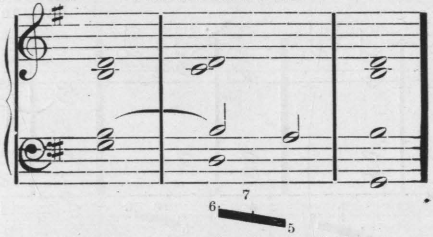




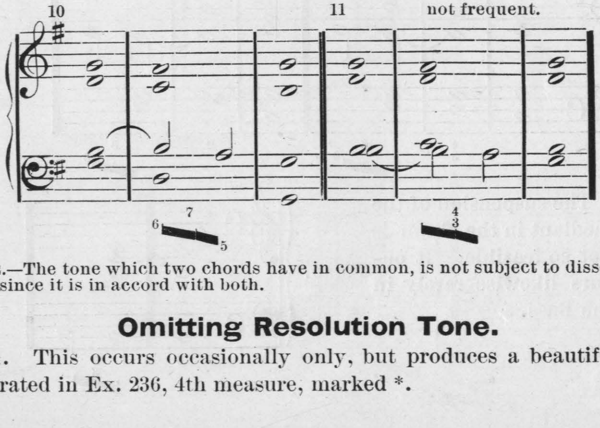
At No. 8 the chord of the Dominant (*) is scarcely more than indicated; it is then followed by an incomplete chord of the 7th. The example is nevertheless harmonious and acceptable.

Double discord through incompleteness of the chord of the Dominant 7th.

9



Not quite so easy of vocal execution is the following; the Alto will experience some difficulty in singing the **c**:

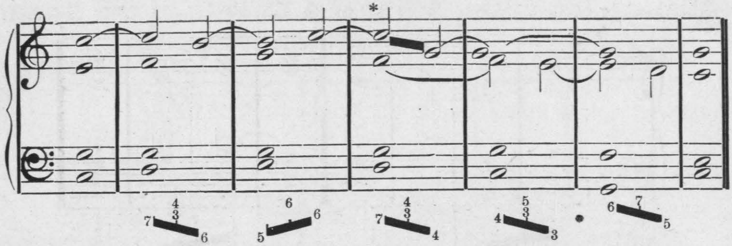


NOTE.—The tone which two chords have in common, is not subject to dissonant suspension, since it is in accord with both.

Omitting Resolution Tone.

§ 121. This occurs occasionally only, but produces a beautiful effect, as illustrated in Ex. 236, 4th measure, marked *.

Ex. 258.

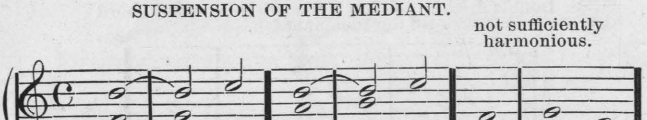


Suspensions of the Tones in the Chords of the Dominant and Dominant 7th.

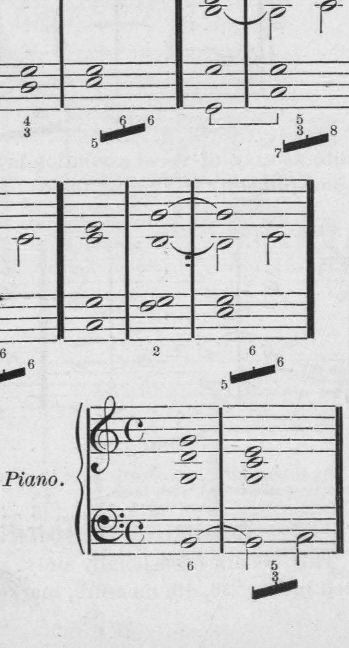
§ 122. These are not so usual, but produce beautiful effects.

SUSPENSION OF THE MEDIANT.

Ex. 258.



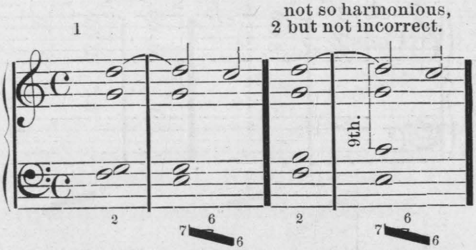
The suspension of the mediant in the Tenor is not so feasible. It occurs likewise rarely in the Bass.



Suspension of the 5th in the Chords of the Dominant and Dominant 7th.

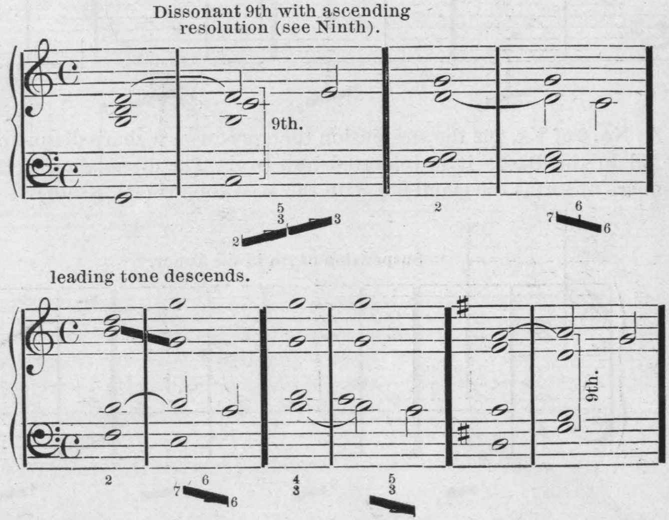
§ 123. The suspension of the 5th occurs mostly in connection with the chord of the 6th of the Tonic.

Ex. 260.



The dissonant **d** at 2 is in reality the interval of the 9th, with descending resolution. (See Ninth and Chord of the Ninth.) The signature however is computed from the Bass tone, hence the dissonant **d** is marked as the 7th, resolved into the 6th.

Ex. 261.

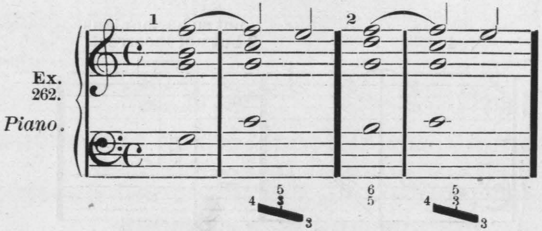


Suspension of the 7th.

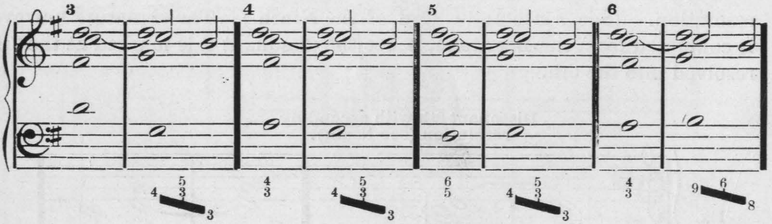
§ 124. This occurs frequently, because the 7th is the subleading tone, sympathetically inclined to the harmonious mediant.

Suspension of 7th in Soprano.

Ex. 262.

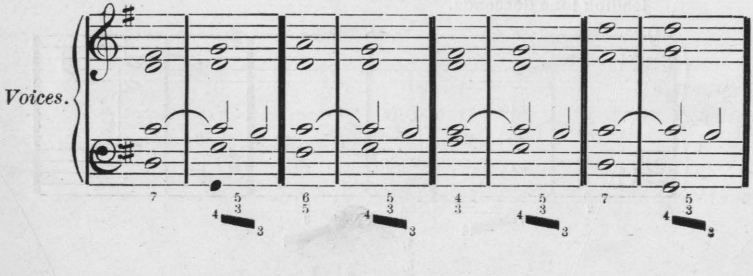


Suspension of 7th in Alto.

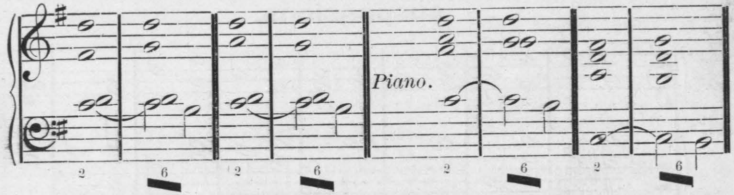


At No. 6 of Ex. 262 the suspension tone produces a sharp dissonance with the 3d in the Bass; it is tolerated however. The dissonant **c** in the same number (6) forms the small 9th with the Bass tone **b** (see Ninth).

Suspension of 7th in the Tenor.



Suspension of 7th in the Bass.

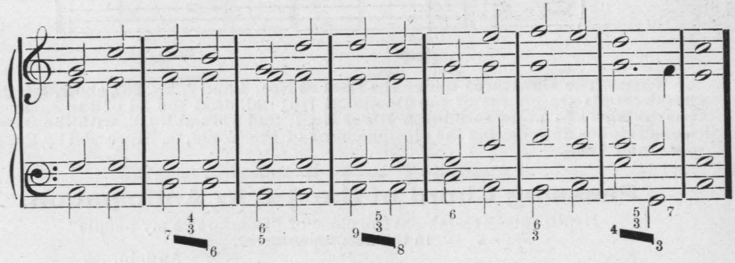


To the Student!—Invent other examples by selecting other positions for the parts.

Chord Series containing Fundamental Positions, inversions and Suspensions.

§ 125. When a suspension is introduced, good taste demands that at least one other should occur in the same chord series, or in a reasonably short time in a longer piece. It would be quite natural and acceptable to introduce a number of suspensions after one has been heard. The effect of a suspension is one of hightened intensity; continued plain chords after it, unless managed with great skill, are less impressive.

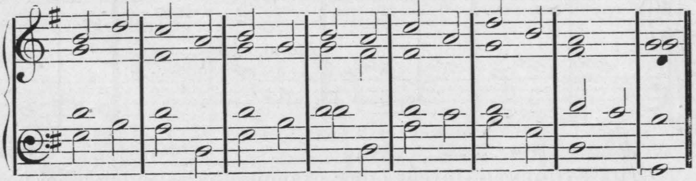
Ex. 263.



§ 126. In this example we have endeavored to make the melody attractive, introducing of course only such tones as belong strictly to the chords. The middle parts and Bass frequently repeat tones. In this respect an improvement can be effected by condensing the repeated half notes into whole notes, thereby obtaining for this short piece better sustained harmonies, and greater prominence in the melody, which in that way acquires animation, in contrast to the subdued and prolonged subordinate parts.

Example in which the student shall introduce two suspensions.

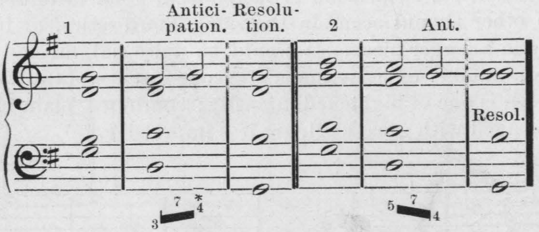
Ex. 265.



Anticipation.

§ 127. This is the opposite of suspension: a dissonance effected by anticipating a tone belonging to the next following chord. The ear can not only endure, but enjoy, very complicated dissonances of this nature. **Bach**, **Handel** and other great sacred composers delighted in making use of anticipations when coming to points of repose or a close.

Ex. 265.

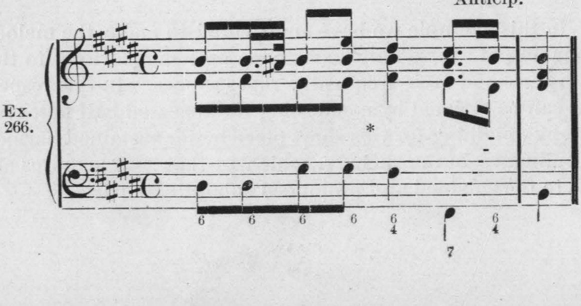


* Note.—The signatures under the Bass at Nos. 1 and 2, Ex. 265, show, 1st, that the general chords are chords of the Dominant 7th; 2d, that the 3d of the same chords (f sharp) moves to a tone forming a 4th at No. 1, and a 5th at No. 2, with the Bass, both dissonant tones anticipating the closing chord of the Tonic, as expressed by the figures 3—4 and 5—4.

Passsing Chord of the 4-6 by Anticipation.

Handel:—Messiah—at the close of "Comfort ye my people" in the accompaniment.

Ex. 266.

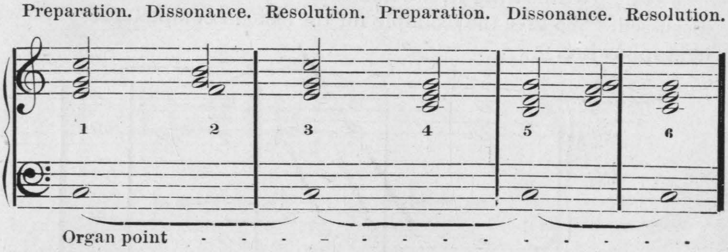


In the case of Ex. 266 the anticipation is consonant, and therefore much less impressive. It affords a good instance of two successive chords of the 6th and preparation of the chord of the 4-6 by one of the 6th, at *.

Organ Point.

§ 128. The Organ Point occurs principally in the Bass. It consists, in the first place, of the continuation of the fundamental tone under chords which are consonant with it. But the chords over this fundamental tone may also be dissonant with the latter. At Ex. 267 the fundamental tone **c**, although forming no integral part of the chord of the Dominant, continues while the latter is introduced. Strictly speaking, the dissonance occasioned by an organ point should be *prepared* (*i. e.* preceded) by a consonant chord as at Nos. 1 and 4, and *resolved* (*i. e.* followed) by a consonant chord as at No. 3 or 6.

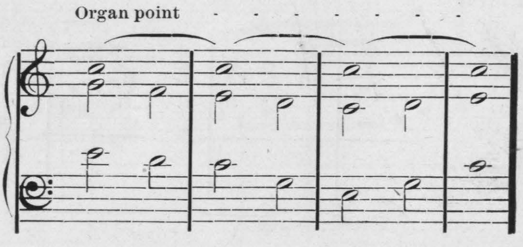
Ex. 267.


Preparation. Dissonance. Resolution. Preparation. Dissonance. Resolution.
1
2
3
4
5
6
Organ point

Organ Point in the Treble.

§ 129. Occasionally an organ point occurs in the highest part.

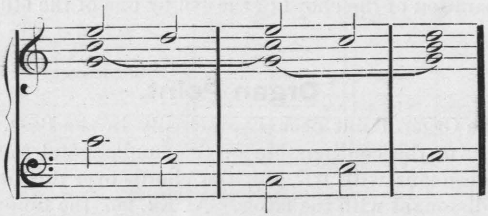
Ex. 268.



Organ Point in a Middle Part.

§ 180. This kind occurs rarely.

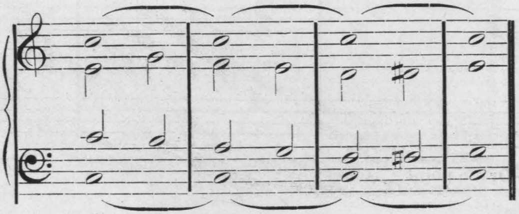
Ex. 268.



Double Organ Point through Doubling of the Fundamental Tone.

§ 132. To illustrate it, we had to have recourse to combinations not yet discussed. We give the example for the sake of completeness; likewise the next following.

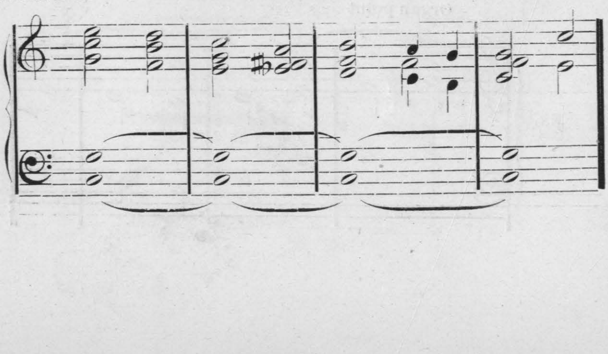
Ex. 269.



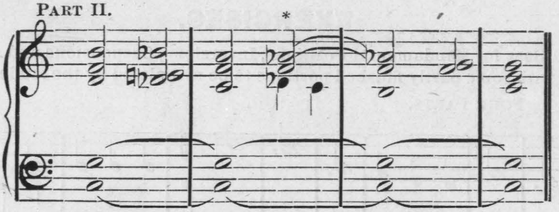
Double Organ Point through Tonic and Dominant.

Ex. 270.

Piano.



PART II.



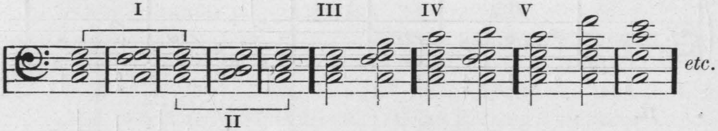
1) In Part I, Ex. 270, Organ points relating to Tonic occur at 2, 5, 7 and 8, that is, some of the tones in the right hand of those numbers form no integral part of the chord of the Tonic. Organ points relating to the Dominant in Part I, occur at Nos. 4 and 6.

2) In Part II one of the chords (*) is entirely foreign to either Tonic or Dominant.

Mixture of the Chords of the Tonic and Dominant.

§ 132. This does not occur frequently in vocal, but quite frequently in instrumental music.

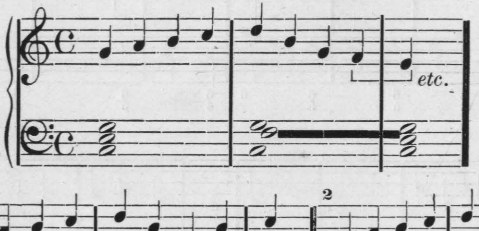
Ex. 271.



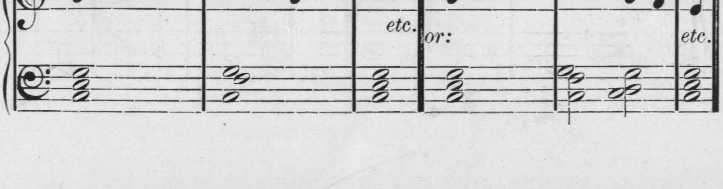
Nos. III, IV and V partake of the nature of the Organ point.

Chords of this nature, like all others, are subject to the laws of progression. In Ex. 272 there occur consecutive octaves. Ex. 273 gives remedy.

Ex. 272.



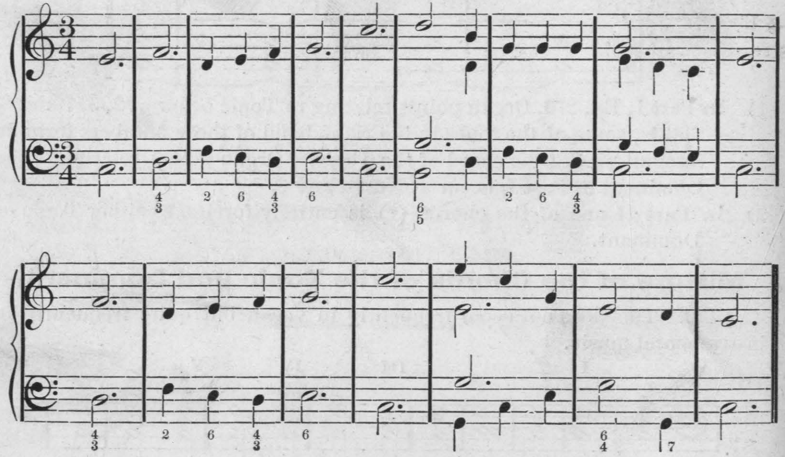
Ex. 273.



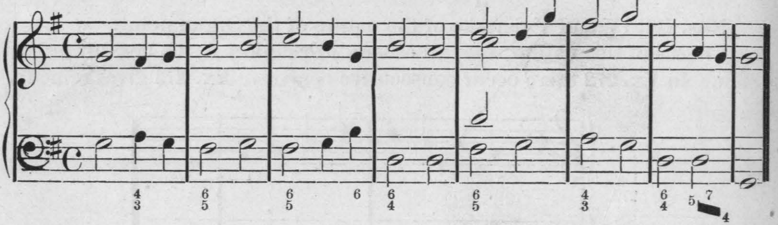
EXERCISES.

Melody and Bass for Fundamental Positions, Inversions, Suspensions and Anticipations, with some partly finished portions to be completed by the student.

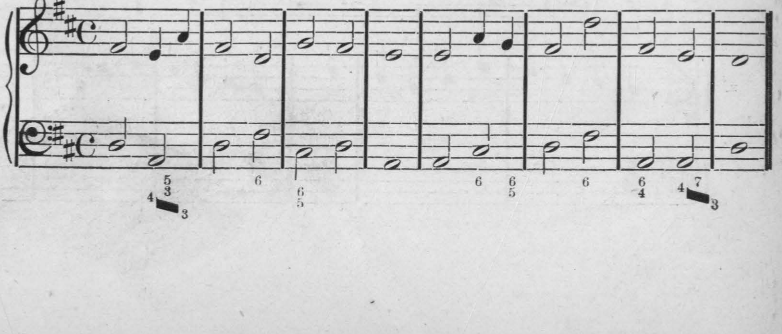
I. FOUR PARTS.



II.



III.



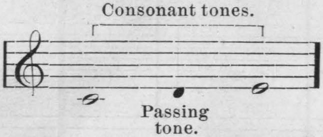
Passing Tones.

§ 133. The Passing Tone is that feature in the development of *melody*, which, properly employed, gives to it freedom and graceful fluency. The Passing Tone imparts to melody a more perfect conjunct movement, renders it more original, impressive and attractive. Thus enriched, Melody becomes the very opposite of Harmony, while, at the same time, these two opposites (Melody and Harmony) attain a more intimate unity. With the study of Passing Tones we advance another step upon the field of artistic composition, one which distinctly foreshadows the ultimate formation of counterpoint and fugue.

NOTE.—One of the cornerstones of these musical forms is the mature development of Melody, hence they flourished at an earlier period in the history of music than the art of Harmony, which is of modern origin. The single strain (melody) is of an earlier growth.

There are two principal kinds of Passing Tones: Diatonic and Chromatic. Diatonic Passing Tones consist exclusively of tones natural in the key in which they occur, and are consequently free from accidentals (see Primer: "Accidentals"). Chromatic Passing Tones, on the contrary, are foreign to the key, and consist largely of accidentals. The essential element of Passing Tones is one of dissonance with the prevailing harmony, but it is so rapid and fleeting in its passage, that either the dissonance is not felt at all, or else is agreeable to the ear. Passing Tones are chiefly conjunct in their movement, but they may also be disjunct. The Passing Tone occurs, primarily, between two tones consonant with each other:

Ex. 274.



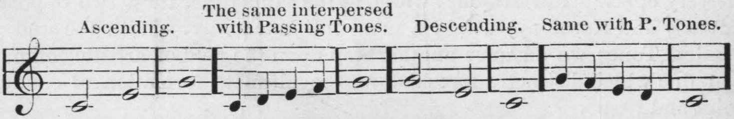
In a certain sense we may say that the consonant tones prepare and resolve the passing tone. Hitherto we have used the terms "preparing" and "resolving" exclusively in an harmonial sense. Applied to the Passing Tone we use them in a melodial sense. Strictly speaking, the Passing Tone should be prepared and resolved, i. e. *preceded* and *followed* by tones consonant with each other; but such is the elasticity of this adjunct to Melody, that preparation may be often entirely omitted and resolution greatly delayed or displaced. The result is, that the Passing Tone may fall upon either an accented or unaccented part (see "Accent" in Index). In giving examples of Passing Tones, we shall continue to limit ourselves for the present to the three chords of the Tonic, Dominant and Dominant 7th.

Diatonic Passing Tones, based upon the Harmony of the Chord of the Tonic.

§ 134. Although Passing Tones are melodial in their nature, they must be based upon some Harmony to legitimize their existence.

The successive tones of the Chord of the Tonic:

Ex. 275.

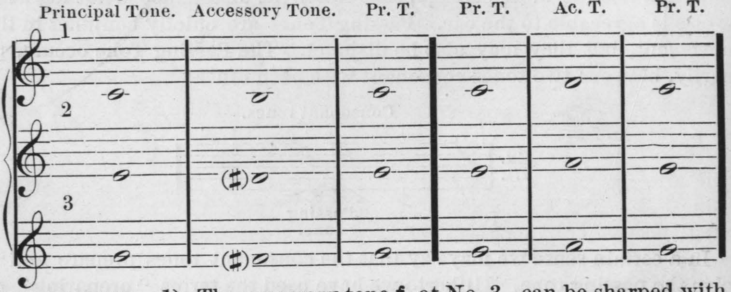


EXPLANATION.—Ascending, the Tonic **c** prepares the Passing Tone **d**, and the Mediant **e** resolves it. The Mediant **e**, at the same time, prepares the Passing Tone **f**, and the Dominant **g** resolves it. Descending, *vice versa*.

Accessory Tones.

§ 135. When preparation and resolution are effected by the same tone, the Passing Tone becomes, in a *special* sense, an accessory tone. We give a few examples to illustrate this, premising at the same time that we shall thereafter, for the sake of brevity, class the "Accessory" under the general term of "Passing Tone."

Ex. 276.

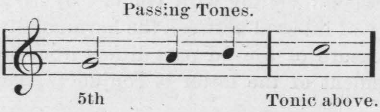


EXPLANATION.—1) The accessory tone **f**, at No. 3, can be sharped with advantage, for **f** is the subleader and is sympathetically inclined to **e**, hence its return is, so to speak, up-hill work, and unnatural. Under ordinary circumstances therefore **f** sharp will be substituted for **f** natural, so as to impart to this passing tone a sympathetic leaning towards the principal tone **g**. Or, to express it differently, by sharping the subleading tone **f**, we change it into a *leading tone* proper, with upward tendency. 2d) The accessory tone **d**, at No. 2, has no special inclination for the tone above it (**e**), or that below it (**c**), hence it may be used as a natural. It may however at times be desirable to sharp it, and make it a special leading tone with upward tendency.

The two Passing Tones between Fifth and Octave.

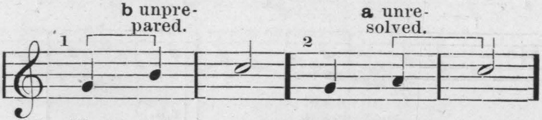
§ 136. The space between the Dominant (**g**) and the Tonic above (**c**) admits of two passing tones. When circumstances (requirement of measure or design) admit, both may be used, thus:

Ex. 277.



Otherwise the **b** (leading tone) must appear unprepared, or the **a** unresolved:

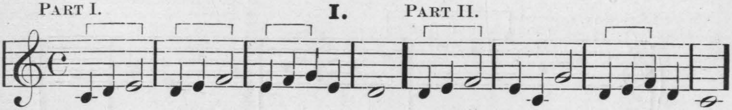
Ex. 278.



Both are possible, No. 1 being a usual and frequent mode of progression, No. 2 less frequent and somewhat eccentric.

Other Examples of Conjunct Diatonic Passing Tones, prepared and unprepared.

Ex. 279.



§ 137. The restrictions in the formation of this and the following example are, 1st, that the Passing Tone must appear between two consonant tones; 2d, that it is placed on an *unaccented* part of the measure. In the first measure, for instance, the consonant tones **c** and **e** are accented parts, while the passing tone **d** occupies an unaccented part.

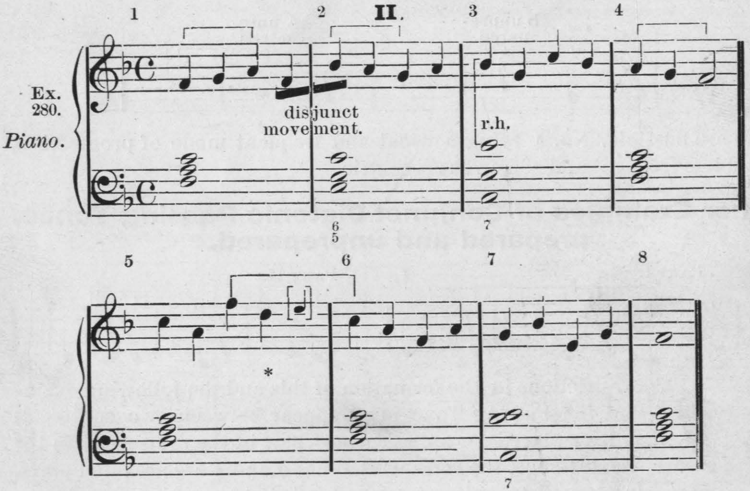
The student should invent other examples with the same restrictions. An attempt may also be made to add to Ex. 278, as a Bass accompaniment, two other parts, avoiding consecutive octaves between Bass and Treble. To accomplish this, certain tones may be doubled in the Bass. It is to be observed that the Harmony (which is to consist exclusively of whole notes for the Bass) changes three times in the first, and three times in the second part. ANALYSIS:—The attention of the reader is called to the form or symmetry of the piece. Each part consists of four measures, with change of Harmony in the same relative places of each part. The harmonial changes are contrasted, that is where the Tonic changes to Dominant in the first part, the

Dominant changes to Tonic in the corresponding measure of the second part.

CONSTRUCTION OF THE MELODY:—1) General similarity of Rythm between 1st and 2d parts. 2) Beginning the 1st part with Tonic **c** (1st tone of the scale)—ending it with the Second **d** (2d tone of the scale). Beginning of 2d part with the Second, ending with Tonic. 3) To avoid the monotony of absolute similarity of interval between the harmonially contrasted 1st and 2d parts, the 2d measure of the 2d part differs from the 2d measure of the 1st part. The movement of the latter is conjunct, that of the former disjunct.

Example with Harmony added in the Bass.

Ex. 280.

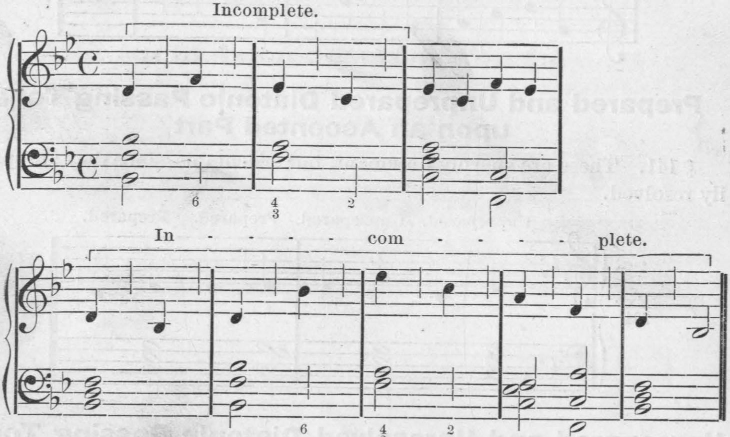


ANALYSIS.—1) In this example (partly also in the one preceding) the melody has been formed with the express purpose of showing the difference between passing tones and such as are consonant with the accompanying chords. 2) The consonant tones which are melodially connected by passing tones are marked. 3) The last melody note of measure 3 might easily be taken for a passing tone; it is however a tone consonant with, and therefore part of the accompanying chord (Dominant 7th). 4) The melody note **d** of measure 5, marked with a star, is one of the two passing tones (**e** and **d**) practicable between the 4th **f** and **c**. Had we chosen **e**, the melody would have been less acceptable, not agreeable, merely odd. The student should shun oddities that are not beautiful. 5) The first melody tone of measure 2 is a free dissonance (7th of the chord), that is, it comes in unprepared: by disjunct movement! (See Free Dissonance.) The ear will readily acknowledge such a progression to be acceptable.

Exercise.

§ 138. In the following example the student will add passing tones or consonant melody tones according to circumstances. The lowest Bass is likewise to be enriched, according to signature.

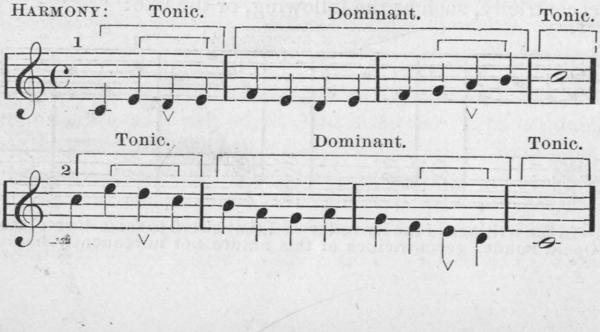
Ex. 281.



Conjunct Diatonic Passing Tones upon an Accented Part.

§ 139. These are more dissonant, because more prominent, but are none the less acceptable.

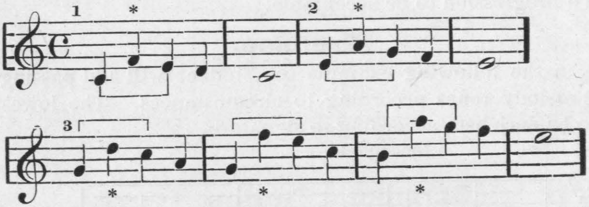
Ex. 282.



Unprepared Diatonic Passing Tones upon an Unaccented Part.

§ 140. These are produced by disjunct movement in the melody.

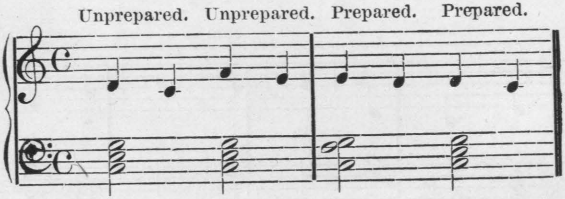
Ex. 283.



Prepared and Unprepared Diatonic Passing Tones upon an Accented Part

§ 141. These are sharply dissonant, but acceptable, since they are speedily resolved.

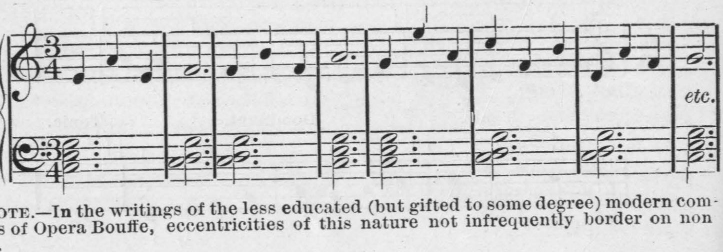
Ex. 284.



Unprepared and Unresolved Diatonic Passing Tones upon an Accented and Unaccented Part.

§ 142. These are a favorite resource of lighter operatic writers. They may nevertheless occur in graver music of modern composers. Classic writers cultivate a strictly logical style, and do not intentionally resort to affected eccentricity, such as the following, or the like:

Ex. 285.

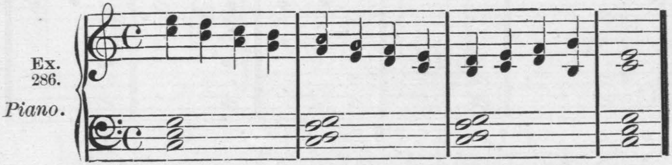


NOTE.—In the writings of the less educated (but gifted to some degree) modern composers of Opera Bouffe, eccentricities of this nature not infrequently border on non sense.

Double Passing Tones.

§ 143. These occur frequently; even three, possibly four at a time may be introduced. An example of two will suffice.

Ex. 286.

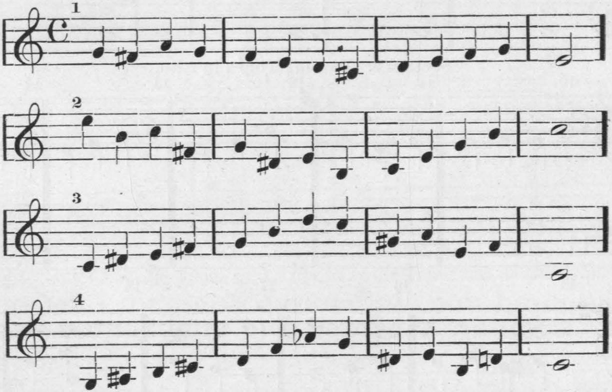


Chromatic Passing Tones.

PREPARED, UNPREPARED, ACCENTED OR UNACCENTED.

§ 144. A few examples of these are given.

Ex. 287.



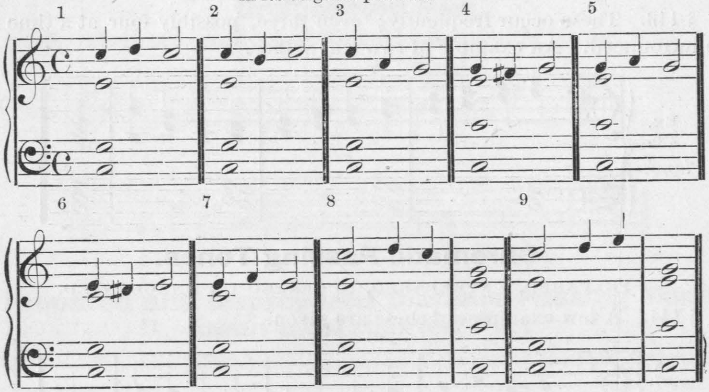
§ 145. Chromatic Passing Tones at distances occur much more frequently in instrumental than in vocal music. Voices must be treated with care and consideration. In Solo parts of a florid nature, however, almost any difficulty within the proper compass can be overcome by the well trained singer.

Passing Tones applied to Chord Series.

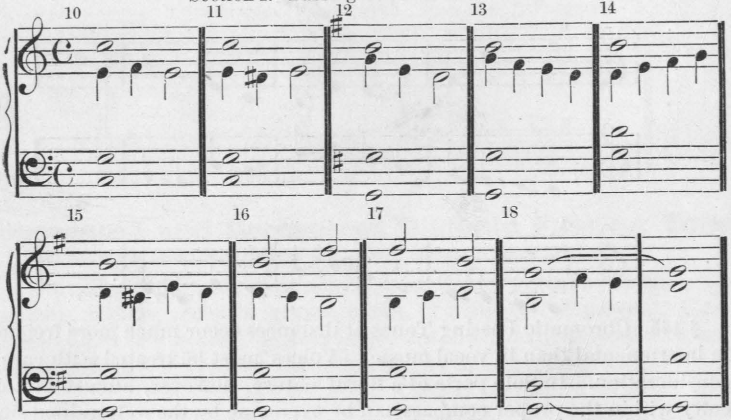
§ 146. To illustrate this style (our immediate aim in view), we shall continue to use the three familiar chords of the Tonic, Dominant and Dominant 7th. An infinite number of variations and different chord positions are possible, besides those given below. The student should diligently and perseveringly invent and write similar examples, from the simplest to those more complicated.

Section I. Passing Tones in the Soprano part of the Chord of the Tonic in its original position.

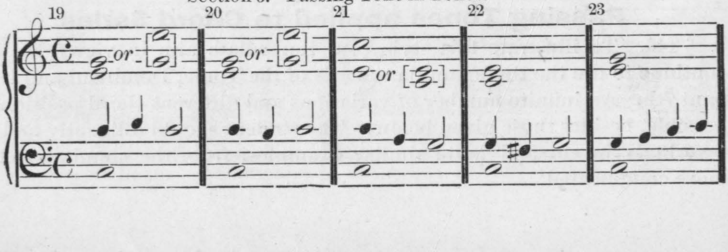
Ex. 288.

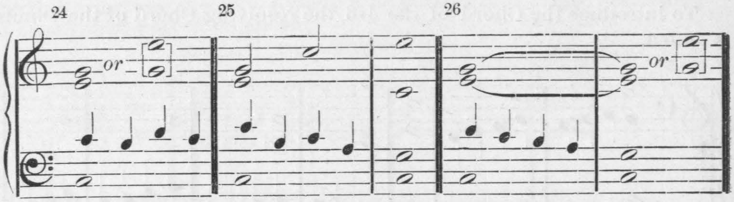


Section 2. Passing Tones in Alto.

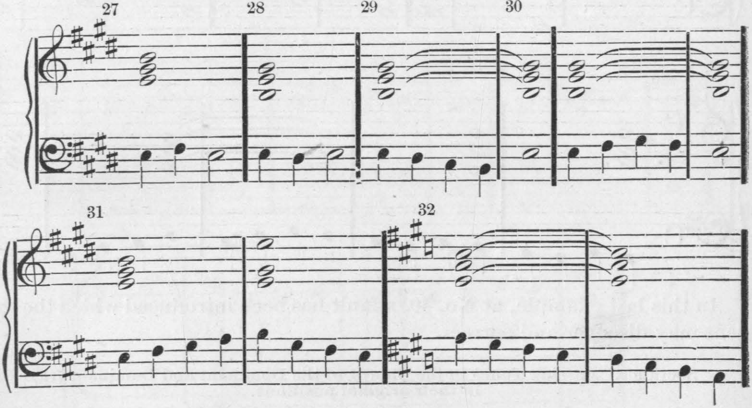


Section 3. Passing Tone in Tenor.



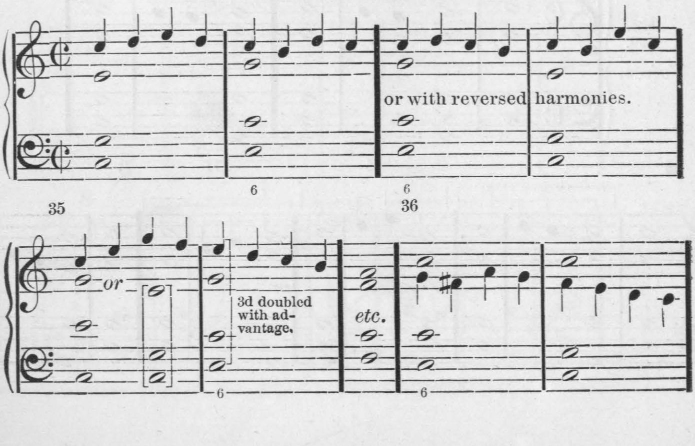


Section 4. Passing Tones in Bass.

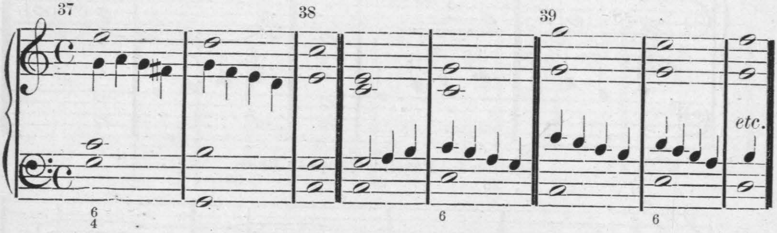


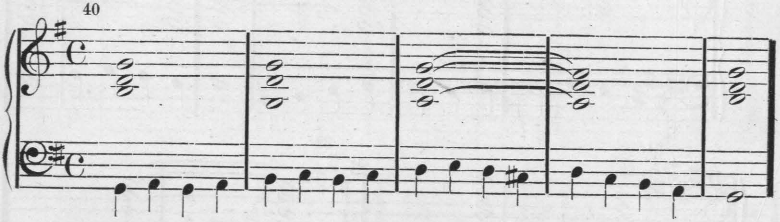
Section 5. Passing Tones in the Chord of the Tonic and its Inversions.

Ex. 289.



To introduce the Chord of the 4-6 the resolving Chord of the Dominant is added.

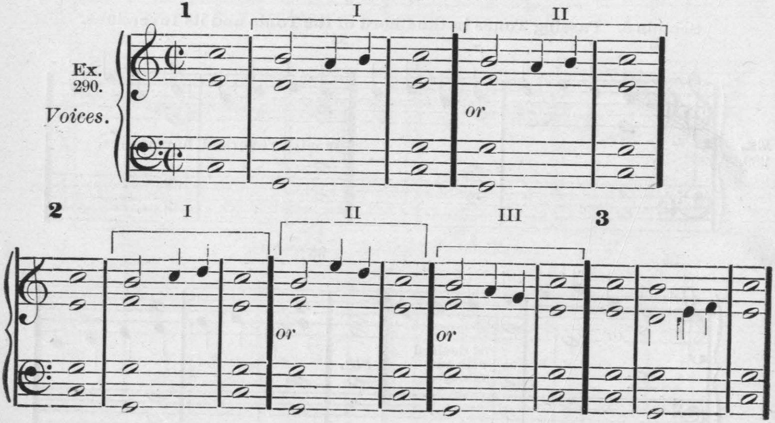




In this last example, at No. 40, a fault has been introduced which the student may discover and correct.

Section 6. Passing Tones in the Chords of the Dominant and Dominant 7th, in their original positions.

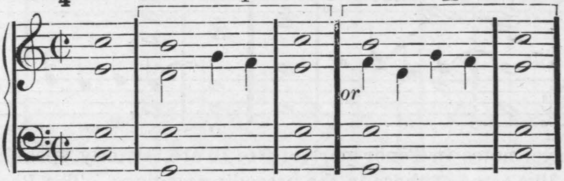
Ex. 290.



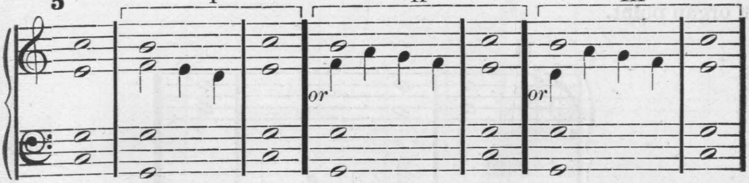
In the following example, No. 4, there is no passing tone proper, each tone being a constituent part of its chord.

Section 7. Passing Tone in Alto.

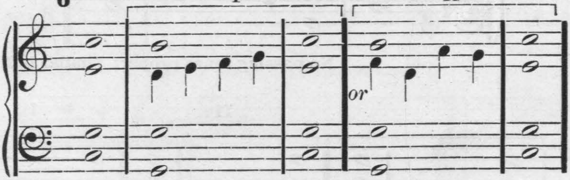
4



5

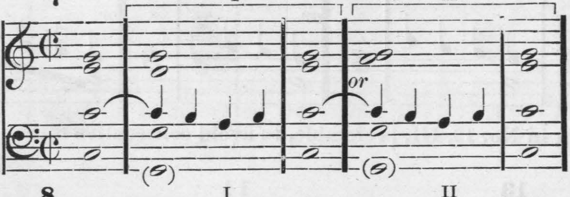


6

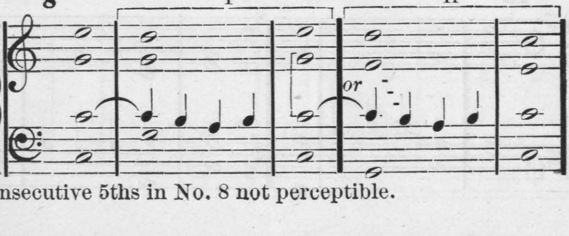


Section 8. Passing Tones in Tenor.

7

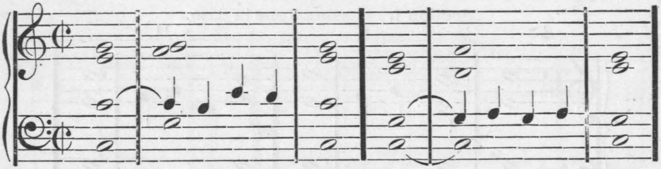


8



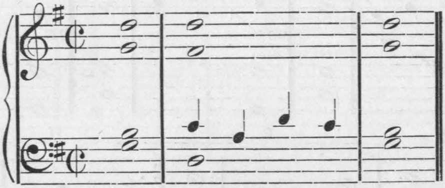
The consecutive 5ths in No. 8 not perceptible.

9



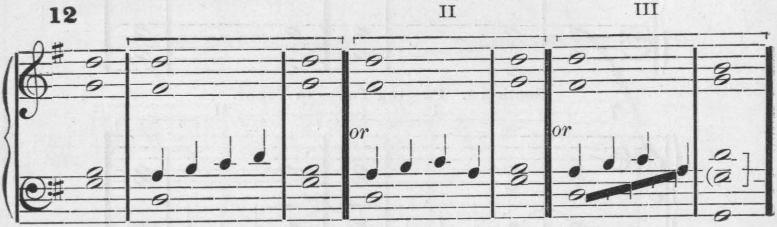
The quarter notes in Tenor part of No. 10 are, strictly speaking, accessory tones, like some of those in the preceding sections. The Bass contains an organ point.

11



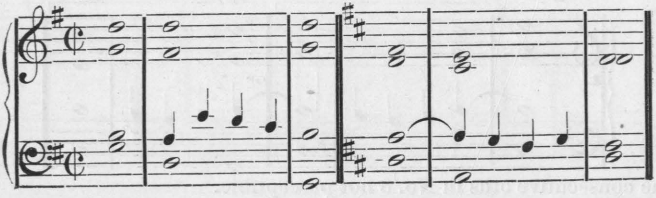
No passing tones proper; similar to No. 4.

12



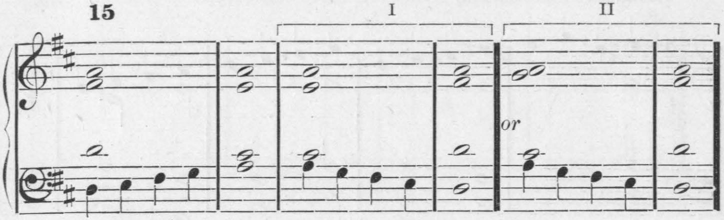
Lower **g** in No. 12, III, preferable, to avoid consecutive fifths.

13 14

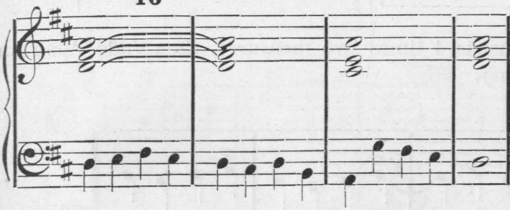


Section 9. Passing Tones in Bass.

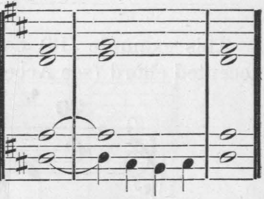
15



16



17

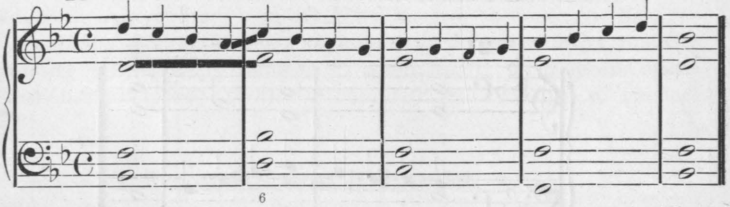


No. 16 contains a fault. The student may discover and correct it.

Section 10. Passing Tones in the same chords with their Inversions, adding occasional Suspensions.

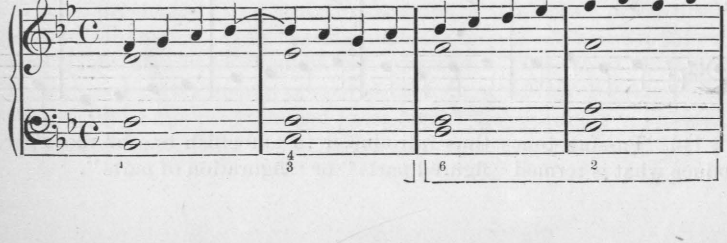
18

Ex. 291.

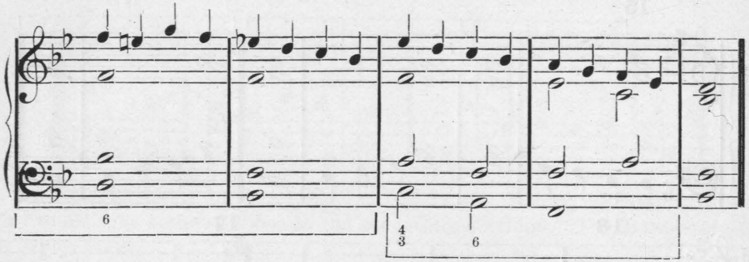


The consecutive 5ths in the upper parts of the first two measures (at 18) are not perceptible, partly because they occur in repeated chords, and partly because each of the 5ths forms a dissonance with the lower parts, which obscures them.

19

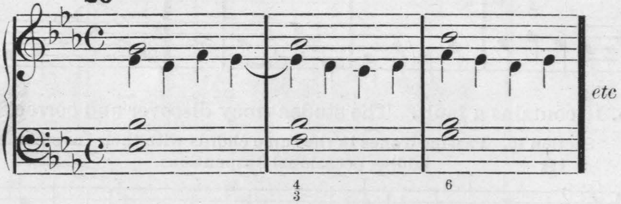


(Example 19 continued.)

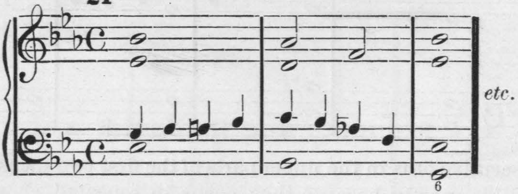


This example (19) consists 4 times two measures, then ends upon an accented chord (see Accent).

20

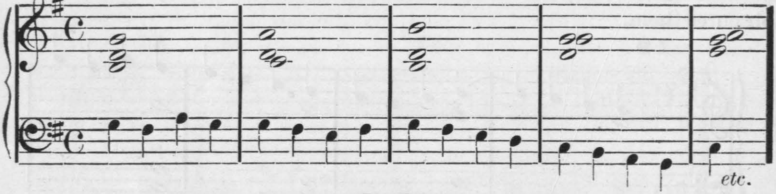


21



22

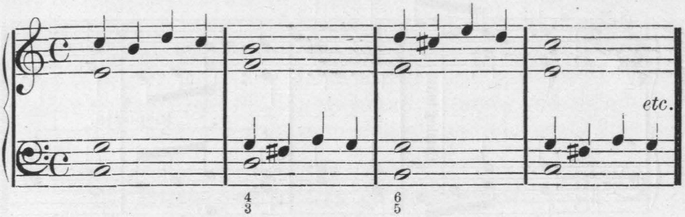
Example of "figured bass."



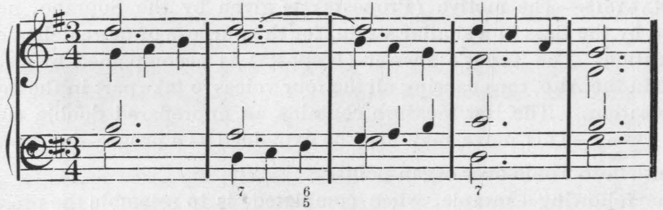
§ 146. Passing tones thus introduced to embellish one or more parts, produce what is termed "figured parts" or "figuration of parts".

23 Section 11. Responses in different parts through Imitation.

Ex. 292.



24

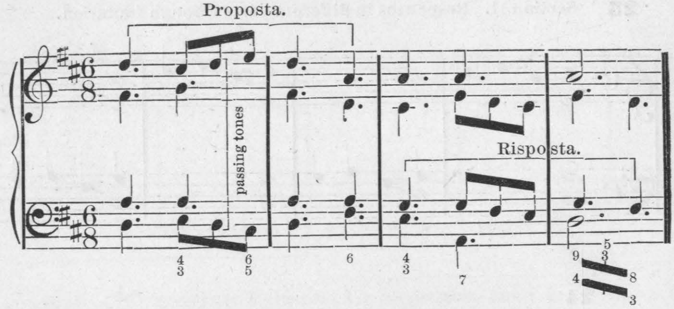


At No. 23 the Alto entones a motive (see Motive) to which the Bass responds in a similar strain; the Tenor then takes up the same motive, the Alto accompanying it in contrary movement, when, finally, the Soprano closes with a response sufficiently similar to complete the exchange of musical thought.

Proposta and Risposta.

§ 147. The process of "*Proposta* and *Risposta*" (question and answer) as it might be termed—a sort of musical conversation—is called *Imitation*. It is the foundation upon which the complicated forms of Canon and Fugue rest. The student will do well to study the movement of the parts in the foregoing and following examples, observing that they are strictly the same as those previously given in the explanation and practice of the three chords under discussion. The Passing tones are merely additions to infuse into these plain harmonies thought and animation. These short examples may be regarded as fragments of composition in which the Passing tones form the Melody, while the sustained tones furnish the Harmony, a uniting, as it were, of soul and body.

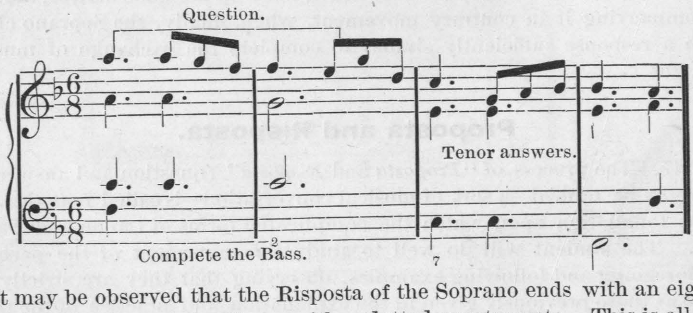
Ex. 293.



ANALYSIS.—The motive (Proposta) is given by the Soprano, accompanied by the Bass in a similar strain, for the purpose of more delicate harmonization. The Tenor's answer (Risposta) is accompanied by a similar rythm in the Alto, thus causing all the four voices to take part in the musical conversation. The last measure contains an unprepared double suspension: $\begin{smallmatrix}9\\4\end{smallmatrix} = \begin{smallmatrix}8\\3\end{smallmatrix}$.—This move may also be explained as a progression from Dominant 7th to Tonic over organ point.

The following example, when completed, is to resemble the preceding one in rhythm and general management of question and answer. The motive is given in the Soprano; the student may supply the answers.

Ex. 294.



It may be observed that the Risposta of the Soprano ends with an eighth note, the Risposta of the Tenor with a dotted quarter note. This is allowable, "imitation" not being subject to strict rule other than that of general symmetry and coherent design.

Imitation.

§ 148. Imitation is not a form of art like the Canon or the Fugue. It is merely a general resource of composition, not subject to set rules: the universal source whence spring all artistic forms of composition. It may consequently be introduced as a mere embellishment, or for the purpose of impressing the listening mind with a more strongly defined musical thought. Through Imitation a musical phrase acquires meaning and force. Music then ceases to be mere beautiful sound, and the ear learns to *hear* and perceive greater depths in the flowing stream of Harmony and Melody, bringing to the surface, as it were, the more delicate movements of intermediate parts.

Different kinds of Imitation.

The least complicated of these is

SIMPLE FREE IMITATION.

§ 149. A theme, phrase or motive is introduced by one of the voices, accompanied by the harmonies of one, several, or all of the others (or the theme may be given by some part of an instrumental piece). Immediately after (or very soon after) another voice repeats the same phrase or one very similar to it, while the first voice may join the more sustained harmonies of the remaining voices. Such simple Free Imitation may occur at the beginning of a piece; it may then be discontinued and taken up later. Symmetry and design must give acceptable shape to the whole piece. In other cases Imitation may be resorted to later in a piece to enhance the general effect.

COMPLEX FREE IMITATION.

§ 150. This consists of a closer combination of Proposta and Risposta. The latter may commence before the former has been given in its entirety, or immediately after, and both will continue with similarity of movement, or one distinguished from the sustained harmonies. Three or more voices may join in this more animated exchange of musical thought. The continuation of the Proposta, after the Risposta has made its appearance, bears the name of *counter point*.

STRICT IMITATION.

§ 151. From complete Free Imitation there is but one step to complex *strict* Imitation, resulting in *Canon* or *Fugue*. Strict Imitation implies an exact (as in Canon) or nearly exact (as in Fugue) reproduction of the Proposta when it appears as Risposta. In the *Canon* the terms Proposta and Risposta are generally retained. In *Fugue* the terms Dux (Leader, Theme, subject proposta) and Comes (companion, answer, risposta) are more usual.

In the various styles of Imitation the Risposta may be given in the Octave, Fifth, Fourth, Second, Third, etc.

Figuration of Parts.

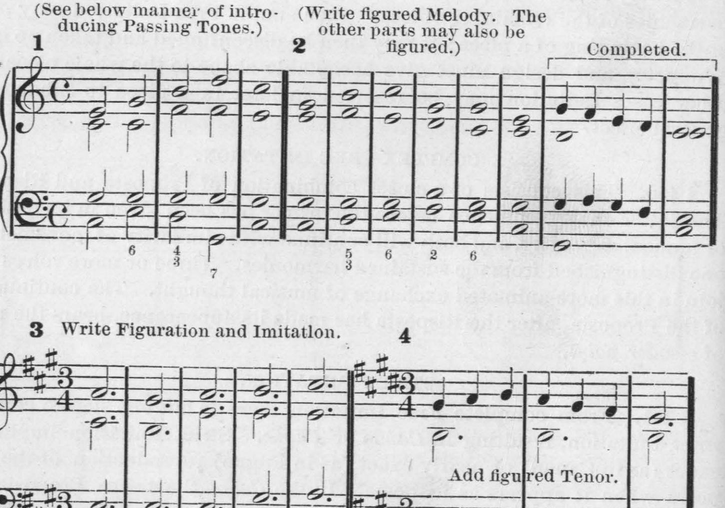
§ 152. This may occur without Imitation, in one or more parts, alternately or together. It occurs frequently in the Bass. A simple example has been given in Ex. 291, Section 10, No. 21.

NOTE.—In the present work space will not permit to go beyond the introduction (to some extent) of Free and Complex Imitation.

Exercises.

The student may enrich these simple chord positions and series with Passing tones according to directions given with each exercise. To accomplish this, the student is permitted to make changes in the position of the tones forming the chords. An example is given to show how this is to be managed. The Bass should remain the same in its principal points. Each example may be written with three or four variations. Suspensions may be occasionally introduced.

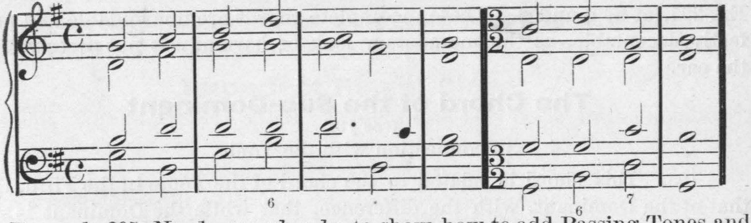
Ex. 295.


1
(See below manner of introducing Passing Tones.)
2
(Write figured Melody. The other parts may also be figured.)
Completed.
6
4 3
7
5 3
6
2
6
3 Write Figuration and Imitation.
4
Add figured Tenor.
6
6 4

Alto and Bass may give Reposta and Risposta.

5 Add Passing Tones in Melody.

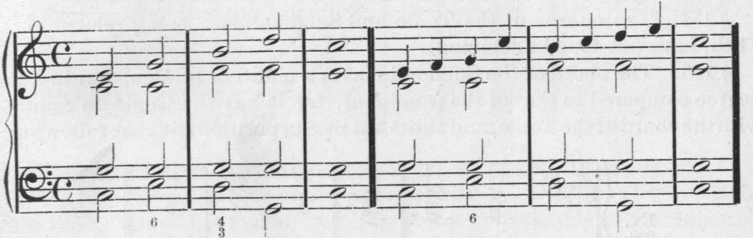
Add Passing Tones with Imitation *ad libitum.*



Example 295, No. 1, *reproduced*: to show how to add Passing Tones and Imitations to a given chord series:

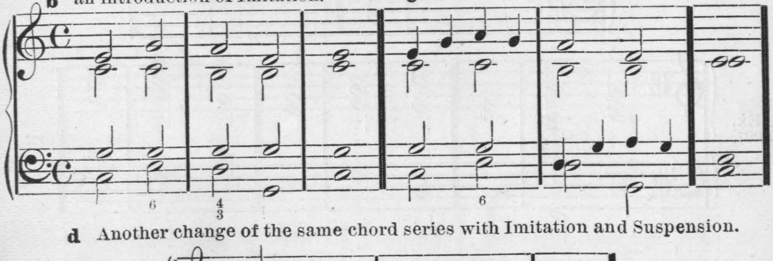
Chord Series of Ex. 295, No. 1.

a The same with Passing Tones in Soprano.

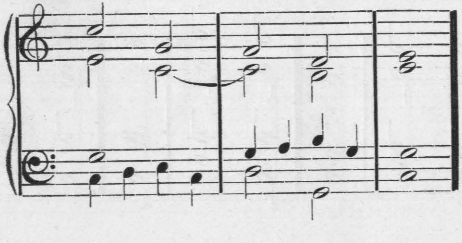


b The same chord series changed to suit an introduction of Imitation.

c Imitation introduced in the same changed chord series.



d Another change of the same chord series with Imitation and Suspension.



Observation.—The introduction of Passing Tones, Figuration and Imitation frequently produces incomplete chords, as in various places of Ex. 295, at **a**, **c** and **d**. These incomplete chords are unavoidable and perfectly acceptable, as the momentary lack of harmony is not perceived by the ear.

The Chord of the Sub-Dominant

(see § 32)

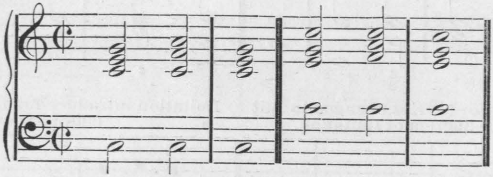
in connection with the Tonic.

§ 153. This chord is related to the chord of the Tonic in the Fifth, like that of the Dominant, with the difference, that while the Dominant is situated a 5th *above*, that of the Subdominant is situated a 5th *below* the Tonic. Thus it leads into the lower series of the circle of Fifths (see Primer) containing the keys and chords with flats.

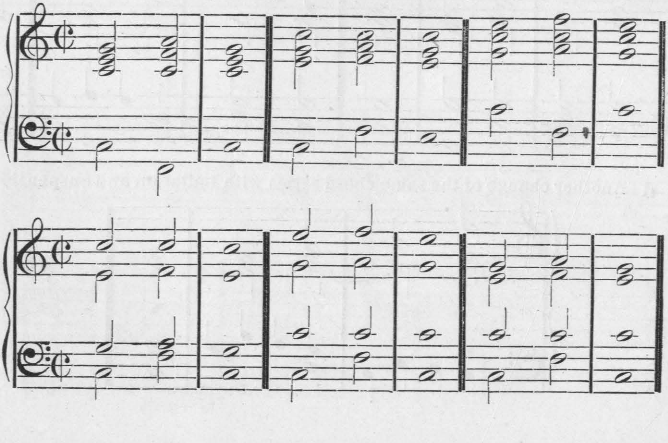
§ 154. The chords of the Tonic and Subdominant, being related in the Fifth, have one tone in common.

§ 155. The chord of the Subdominant is a chord of motion, but in a less degree compared to that of the Dominant, for it has the Tonic in common with the chord of the Tonic, and shifts but litte in positions like the following::

Ex. 296.



Ex. 297.



Perfect Plagal Close.

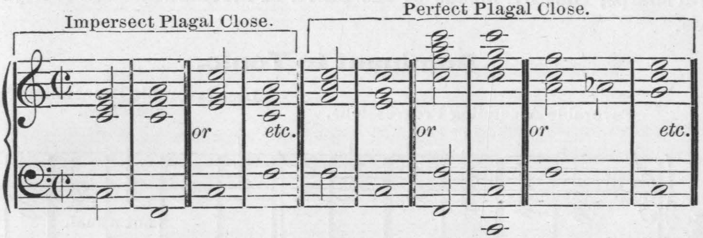
(See Authentic and Plagal.)

§ 156. A piece, or part of a piece, ending with the chord of the Subdominant and Tonic, is said to end with the Perfect Plagal Close or Cadence.

Imperfect Plagal Close.

§ 157. The Imperfect (or half) Plagal Close may occur in the middle of a piece. It consists of the chord of the Tonic followed by that of the Subdominant, with a temporary pause upon the latter, or represented by notes of long duration.

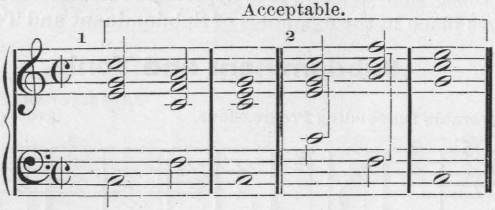
Ex. 298.



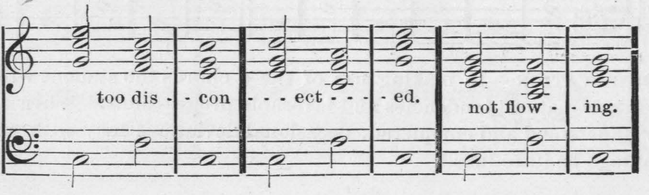
Chord of the Subdominant at distant Intervals.

§ 158. These like similar distances between other chords are only justified by the necessities of the melody, with an object of imparting to it animation or beauty. Care should therefore be taken not to depart uselessly from conjunct movement in the progression of parts.

Ex. 299.



The consecutive 5ths by contrary movement, between Bass and Alto, at Ex. 299, No. 2, are not perceptible.

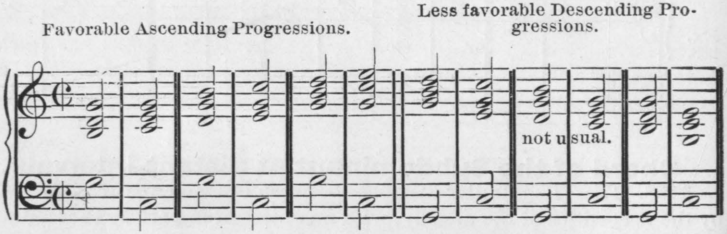


The Opposite Inclinations of the Chords of the Dominant and Subdominant.

§ 159. 1. The most favorable progressions from the chord of the Dominant to that of the Tonic are those that ascend. This is caused by the *ascending* Leading tone. 2. Between the chords of the Subdominant and Tonic the most natural progressions are those which descend, caused by the *descending* Subleader. In the same manner modulation (which we are rapidly approachjng), by means of the chord of the Dominant, inclines to keys with sharps, that by means of the chord of the Subdominant to keys with flats.

Dominant to Tonic.

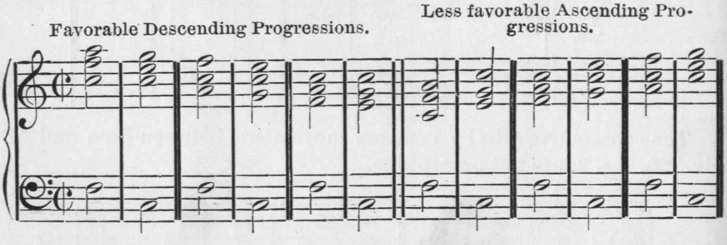
Ex. 300.


Favorable Ascending Progressions.
Less favorable Descending Progressions.
not usual.

In the ascending progressions the leading tone (b) has its natural resolution. In those that descend it is deprived of its natural resolution. The opposite takes place in the examples of Subdominant and Tonic.

Subdominant and Tonic.

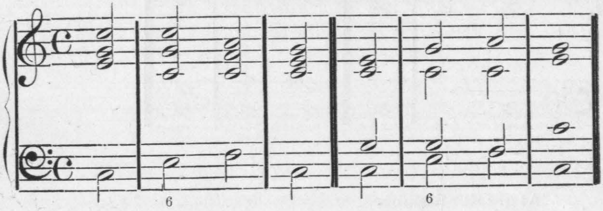
Ex. 301.


Favorable Descending Progressions.
Less favorable Ascending Progressions.

Observation.—In making use of these chords the student will bear in mind their natural tendencies and favorable progressions. When these are fully understood and conquered, occasional deviations may with safety and advantage be introduced.

Chord of the 6th of Tonic and Original Position of Subdominant.

Ex. 302.

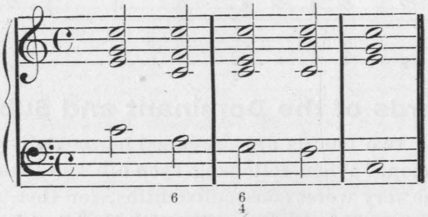


Chord of the 6th of the Subdominant

in connection with that of the Tonic and its Inversions.

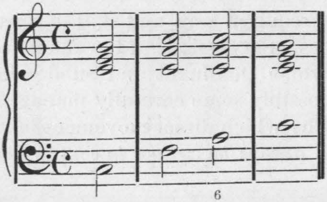
In the following example the chord of the 4-6 of the Tonic is incidental between the two chords of the Subdominant, because the dissonant 4th, **c**, is not resolved. (See §§ 67—70.)

Ex. 303.

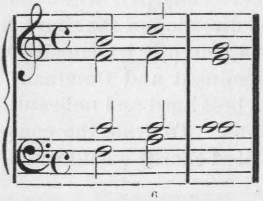


In the following example the 3d is doubled acceptably in the chord of the 6th of the Subdominant.

Ex. 304.



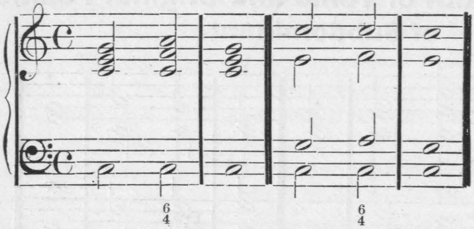
Ex. 305.



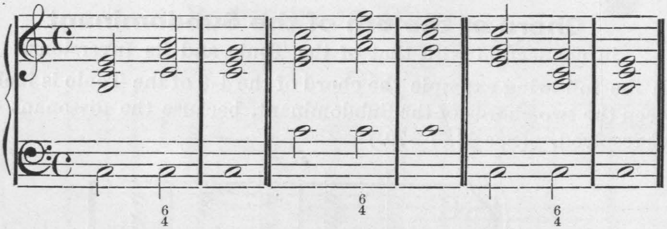
Chord of the 4-6 of the Subdominant.

§ 160. This chord is much less important and of less individual force than that of the Tonic. Its function is more that of a link chord between two chords of the Tonic.

Ex. 306.



At greater distances.

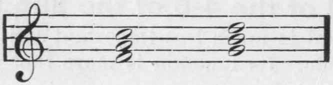


The Chords of the Dominant and Subdominant.

§ 161. These two chords are unrelated harmonially, because they have no tone in common. When following each other in their original positions they produce the very worst consecutive fifths, for then their opposite tendencies art at war with each other. The Subdominant inclines in the direction of the flatted keys (or, according to circumstances, to a lessening in the number of sharps), while the immediately following Dominant would move in the direction of the sharped keys. It requires care and skill to reconcile these apparcntly irreconcilable tendencies. Successions of the chords of the Subdominant and Dominant (or still worse Dominant and Subdominant) are at best hard and unbeautiful, with possibly some carefully managed exceptions. To avoid the consecutive fifths which direct movement between unrelated chords would cause, *they must always be written in contrary movement.*

Direct movement. Consecutive fifths.

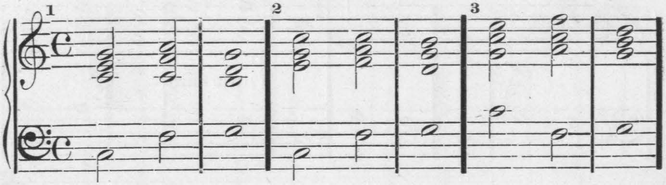
Ex. 307.



The Chords of the Subdominant and Dominant

in contrary movement, to obviate consecutive fifths.

Ex. 308.

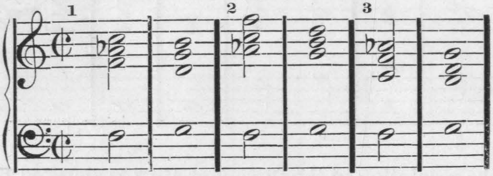


§ 162. The mildest of these series, at No. 3, may be of occasional use, the others are rather harsh, and scarcely ever quite acceptable.

NOTE.—The harsh effect of these unrelated chords is somewhat mitigated when the chord of the Subdominant is in the minor mode. (See Major and Minor.)

Subdominant in the Minor Mode.

Ex. 309.

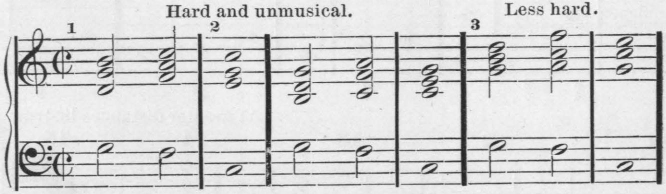


§ 163. These successions are much milder, and No. 3 is quite acceptable, the sympathetic half step **a** to **g** (which draws the chords into closer *melodial* relationship) being at the upper extremity.

Chords of the Dominant and Subdominant.

§ 164. Successions of Dominant and Subdominant are extremely harsh. They occur rarely.

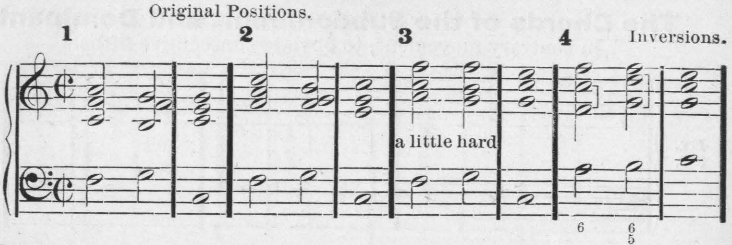
Ex. 310.



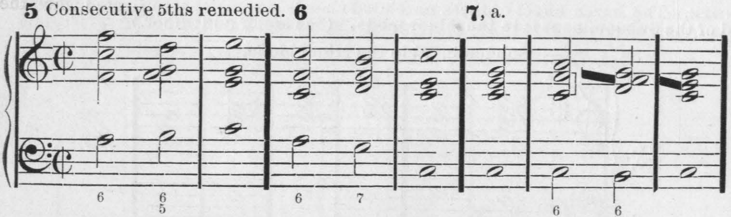
The Chords of the Subdominant and Dominant 7th.

§ 165. These two chords are related to each other through the common possession of the subleading tone, and may succeed each other with good effect. In such chord series the chord of the Dominant 7th must often be incomplete.

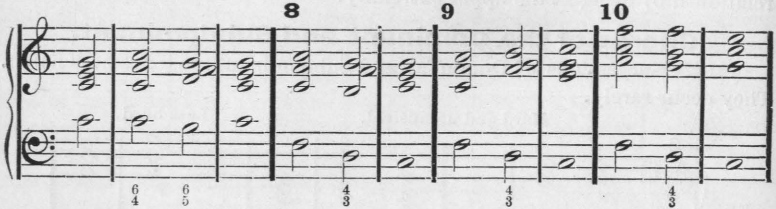
Ex. 311.

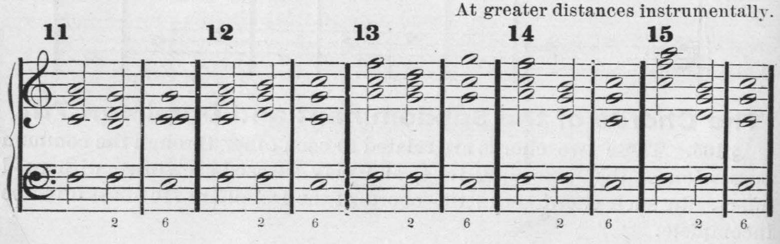


The consecutive 5ths at No. 4 are sufficiently perceptible to make them inadmissable. No. 5 gives the remedy:

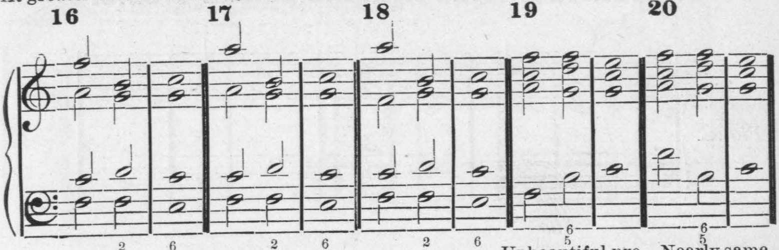


At No. 7 the resolution of the dissonant 4th **f** is delayed by an inversion of the chord of the Dominant 7th, but finally accomplished by the tone **e**. No. 7 sounds rather better in close harmony, as follows:





At greater distances vocally.



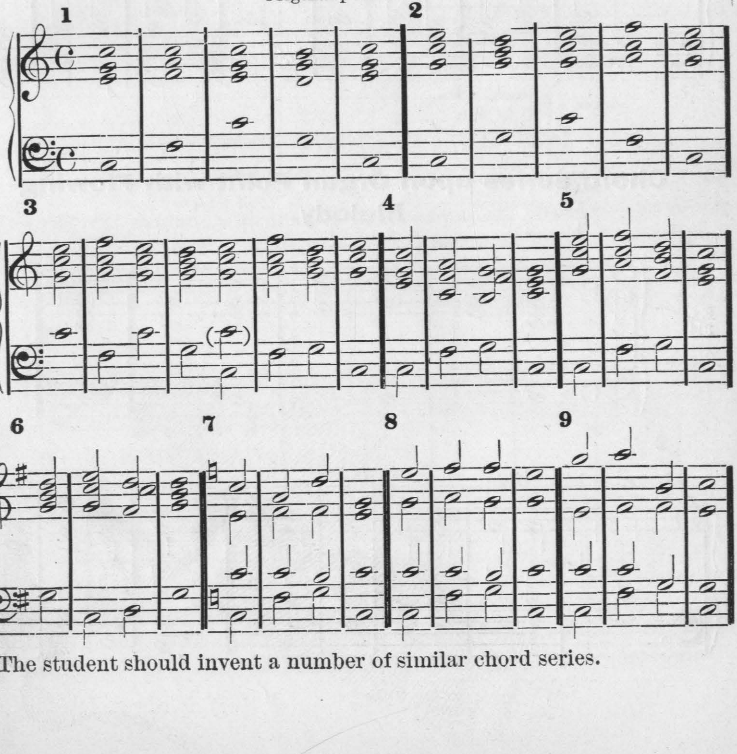
Unbeautiful progression in Bass.

Nearly same objection.

Successions of the Chords of the Tonic, Dominant and Dominant 7th and Subdominant.

Original positions.

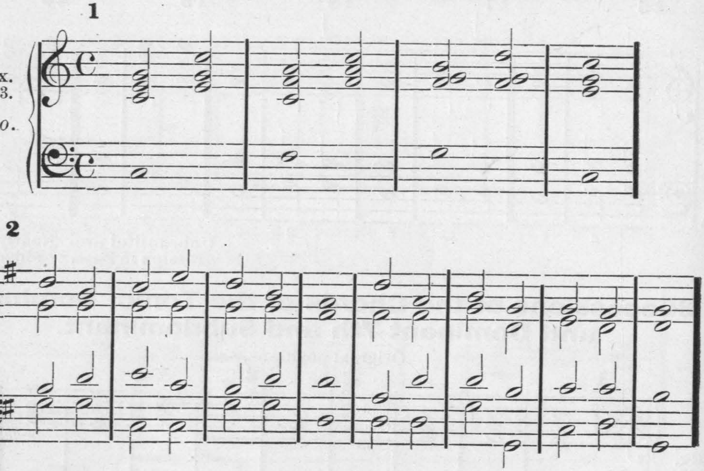
Ex. 312.



The student should invent a number of similar chord series.

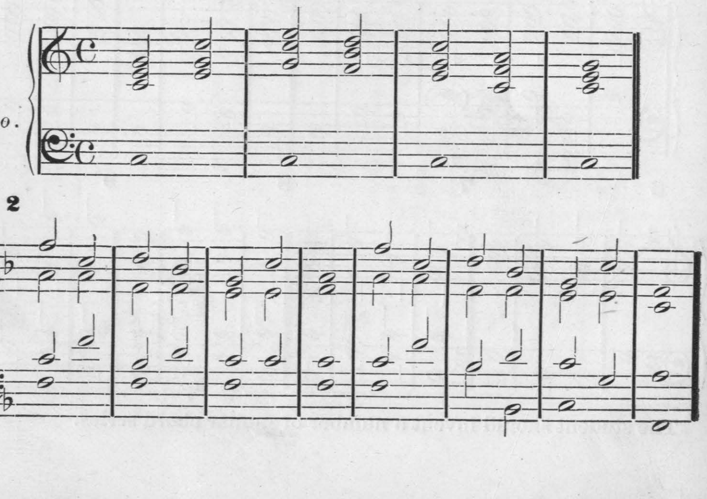
Repeated Chords with Melodious Treble.

Ex. 313.



Chord Series upon Organ Point with Flowing Melody.

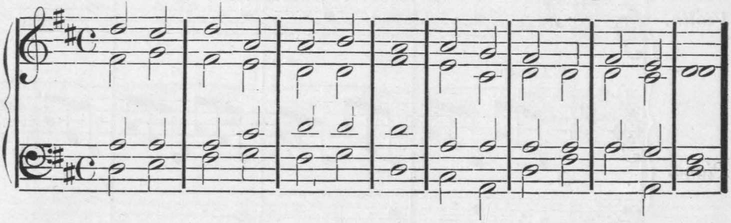
Ex. 314.



Inversions with Single and Repeated Chords.

1

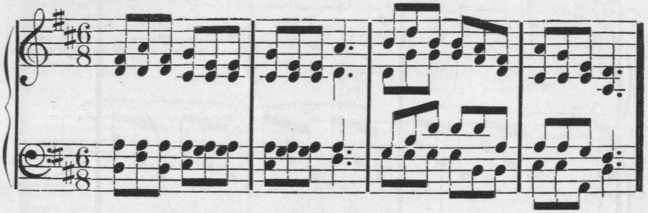
Ex. 315.



In this instance the third is doubled acceptably, the voices moving flowingly.

2 *Allegretto.*

Ex. 316.



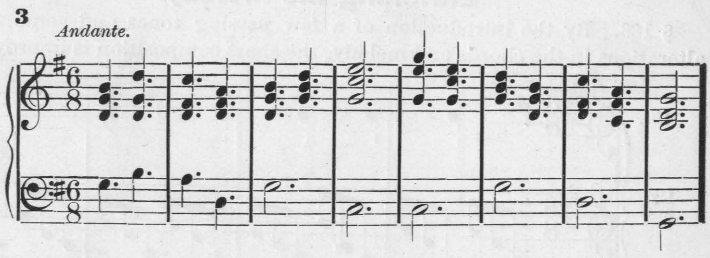
The diligent student will analyze these examples, observing the proper introduction of the chord of the 4-6, the descending of the leading tone, where of advantage, etc., etc.

3

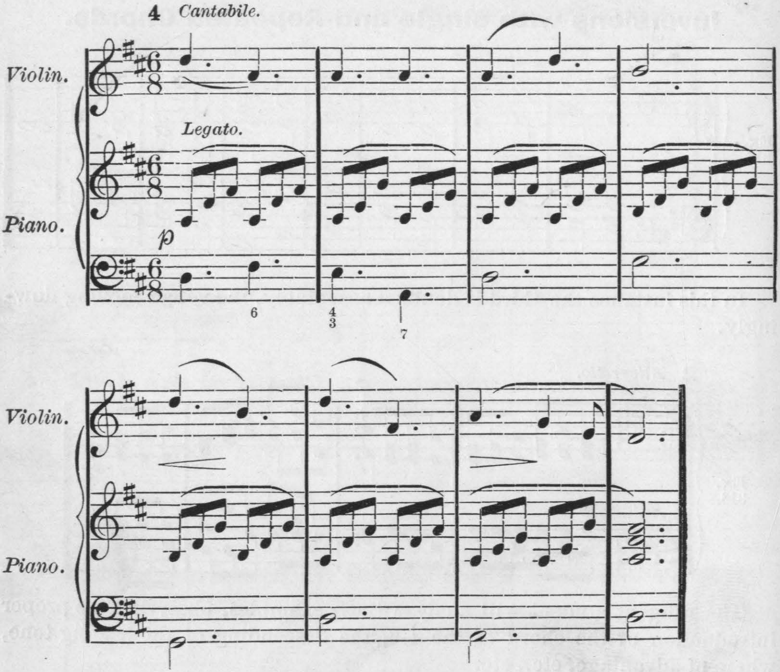
Andante.

Ex. 317.

Piano.



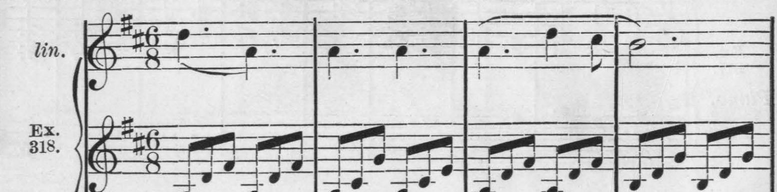
In the following number an attempt is made to utilize No. 3 for a short melody for Violin and Piano. The key of D has been chosen, with slight alterations in the positions of some of the chords. The melody is composed upon the framework of the chords, while the latter are given as arpeggios.



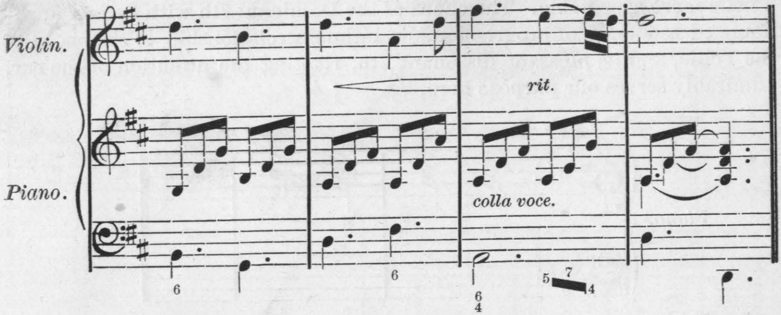
Enriching the Melody.

§ 166. By the introduction of a few passing tones and some further alterations in the chords and melody, the short composition is improved.

Ex. 318.



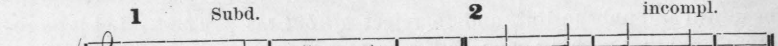
(Ex. 318 continued.)



Subdominant introducing Chord of the 4-6 of the Tonic.

§ 167. The chord of the Tonic comes in with peculiar force when prepared by that of the Subdominant.

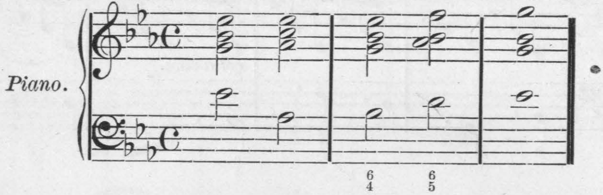
Ex. 319.



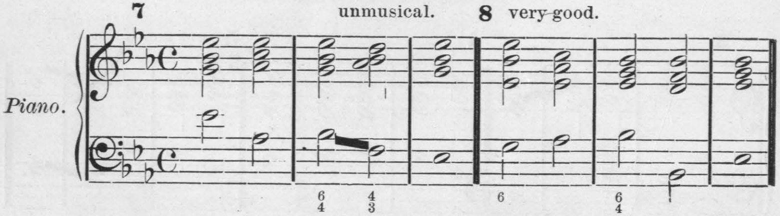
No. 5 is not good, because the resolution tone (**f♯**) of the dissonant 4th (**g**) is given in another part, namely the Bass. This unusual progression, as will be perceived, gives rise to awkwardness in the voicing of the parts, showing that a single unmusical move creates general havoc.

Nevertheless there is a way of making the displacing of the resolution tone a little more acceptable. The chord of the Dominant 7th with its more pronounced tendency of progression, its intimate relationship to the chord of the Tonic, and its pleasant dissonant 7th, riveting the attention of the ear, admirably serves our purpose here.

6



But it may be doubted whether a good composer would write a series like that at No. 6. The student should distinctly remember that style of composition down to its smallest minutiæ, is a matter of *selection*, not one of compulsion. There are in music as many possibilities of bad as of good writing. It remains with the persevering student to learn to discriminate between the beautiful and unbeautiful, and to reject *all but the very best.* Let it be remembered that nothing poor, bad, incorrect or even weak should be written; that it should *all* be good, and that at each step the *best possible* progression should be chosen. The same is necessarily true of all other points in composition and musical art. The following number (7) is highly unmusical. We write it because we deem it important that the student should develop a keen sense for what is unmusical, and thus learn to avoid it.

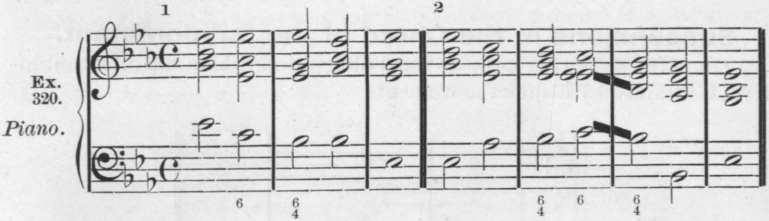


§ 168. No. 8 is excellent, because 1) the chord of the 6th appears in one of its favorable positions; 2) the chord of the 4-6 is introduced by the chord of the Subdominant, thus appearing in the most impressive manner; 3) the dissonant 4th (e♭) is properly resolved; 4) the Bass is flowing, easy and natural; and 5) because all the parts are flowing, moving in compact harmonies. No. 7 partakes of some of the good qualities of No. 8, but is rendered unacceptable by the awkward move in the Bass, as marked.

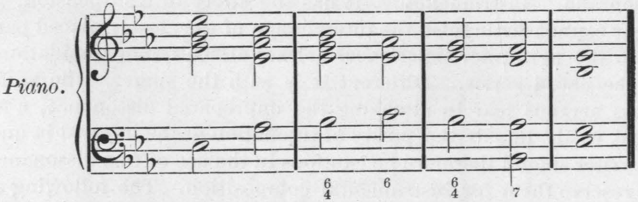
Chord of the 6th of Subdominant introducing Chord of the 4-6 of Tonic.

§ 169. This results in a weaker appearance of the chord of the 4-6 of the Tonic, but is perfectly correct, and may arise, or become unavoidable, from the peculiar voicing of the parts

Ex. 320.

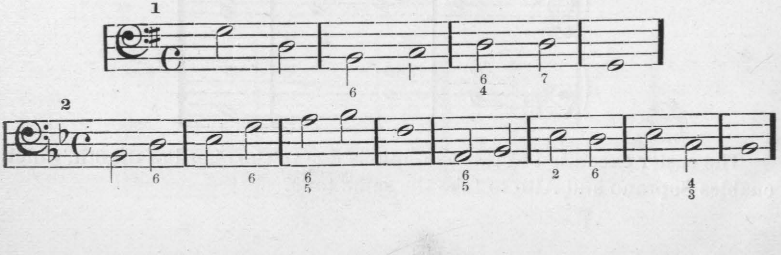


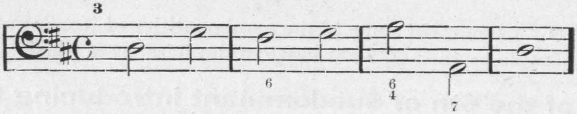
At No. 2 there are two chords of the 4-6. The covered unisons, as marked, are not perceptible on the piano or organ; the four parts have been given throughout to call attention to this progression. In ordinary writing for the Piano it is usual not to adhere to any set number of parts. No. 2 would be written as follows:



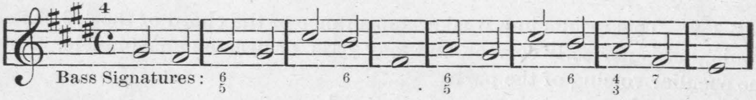
Exercises.

A Basses for Chord Series of Tonic, Dominant, Dominant 7th and Subdominant.





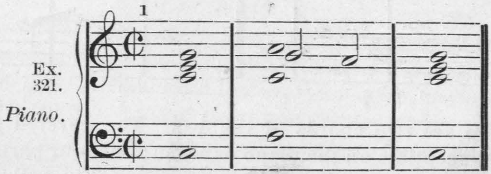
B Mel with Cyphered Bass. to be completed.



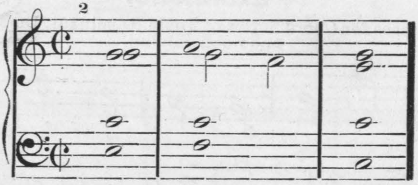
Suspensions in the Chord of the Subdominant.

§ 170. The following present vocal difficulties, where the dissonant interval is attained by disjunct movement:

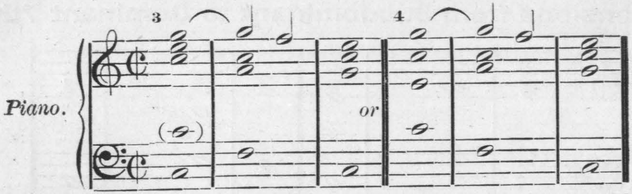
Ex. 321.



Strictly speaking the dissonant **g** in the Alto of the 2d chord of Ex. 321 is no suspension tone, since the consonant **g** preceding it occurs in another part, the Soprano. Instrumentally, it has the effect of a suspension, because the ear cannot distinguish the interchange of the closely placed parts, and because the performer experiences neither difficulty nor trepidation in executing the chord series. Different it is with the singer, who suffers more or less nervous fear in attacking the unprepared dissonance, a fear which might easily impair the purity of intonation of the interval in question. The writer should therefore be cautious in the use of free dissonances, and rather reserve them for instrumental composition. The following example remedies the difficulty:



The easier execution of this example is due to the chord of the 6th, which enables Soprano and Alto to take the same tone.

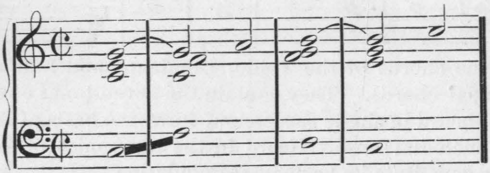


Nos. 3 and 4 can be executed instrumentally and vocally, although the voicing of the middle parts may not be considered a model of vocal fluency.

Suspension with Ascending Resolution.

§ 171. Vocally, the covered octaves between Alto and Bass would not be perceptible; on the Piano they assert their emptiness.

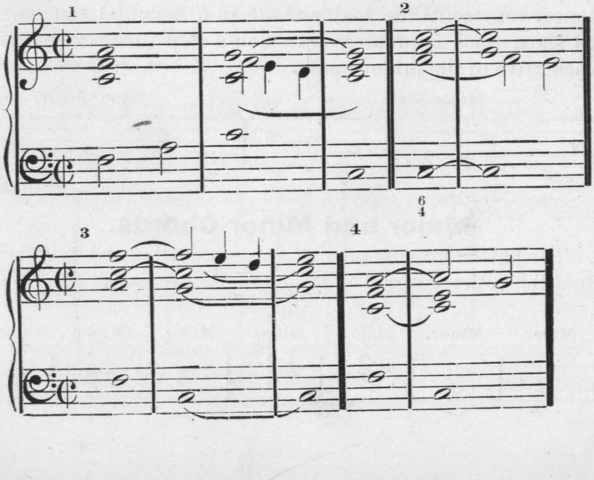
Ex. 322.



Altogether, suspension from the chord of the Tonic to that of the Subdominant offers no fertile field, vocally speaking.

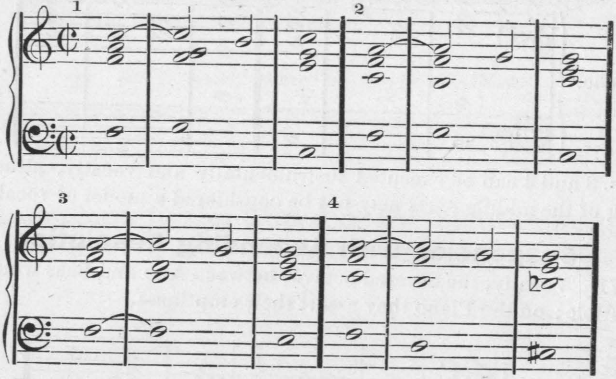
Suspensions from Subdominant to Tonic.

Ex. 323.



Suspensions from Subdominant to Dominant 7th.

Ex. 324.

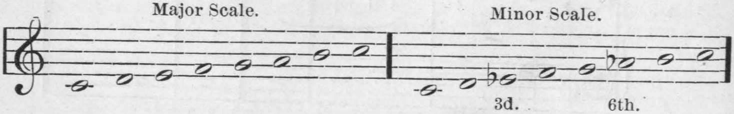


§ 172. The chords of the Tonic, Dominant and Subdominant are the three principal chords. They contain the seven tones of the scale. These seven tones, heard in single succession, form the basis of the entire musical system in a melodial sense. Heard in the harmonies of the three principal chords, they constitute its harmonial foundation.

Major and Minor.

§ 173. There are two modes in music: the Major and Minor modes. The word mode means character, kind or style. The scale, with its seven natural tones, represents the major mode in a melodial sence. When its third and sixth tones are depressed by half a step (semi-tone), it becomes the representative of the minor mode.

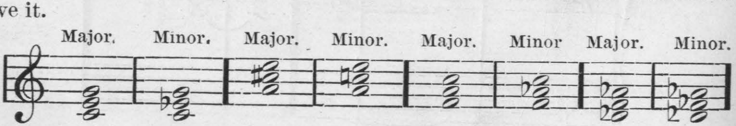
Ex. 325.



Major and Minor Chords.

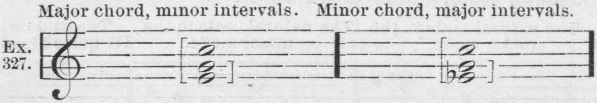
§ 174, The particular character of a three-toned chord is determined by its principal third, that formed by its foundation tone and the tone one third above it.

Ex. 326.



§ 175. In the first inversion of Triads these proportions are reversed, and we have the apparent anomaly of minor chords with major intervals. Again, the first inversions of major chords contain principally minor intervals.

Ex. 327.



This shows that the difference between major and minor is exclusively caused by the character of the *principal third* in a three-toned chord.

§ 176. Mere intervals, therefore, are major or minor relatively only, for the same interval may belong with equal title to either of the two modes.

Four-toned or Dissonant Chords

in their relation to the major and minor modes.

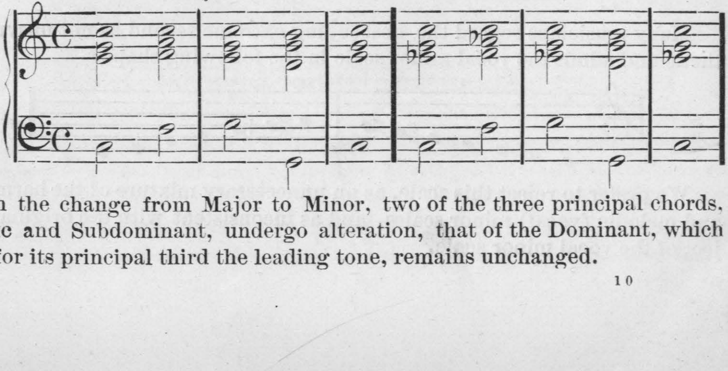
§ 177. The principal of these, the chord of the Dominant 7th, is common to both the major and minor modes, for its third is the Leading Tone, which remains unaltered in the minor scale of the same key note. (See Ex. 328). Thus is **b** the leading tone of both C major and C minor. All other 4 toned or dissonant chords, while they are positively neither major nor minor, have a more or less pronounced leaning to one or the other of these two modes. This will be more clearly shown when we shall arrive at the study of 4 toned chords.

Complete Major and Minor Keys.

§ 178. A complete major or minor key is represented, in a melodial sense, by the diatonic scale, in an harmonial sense, by the principal chords of the Tonic, Dominant and Subdominant.

The Formula of a Complete Key.

Ex. 328.

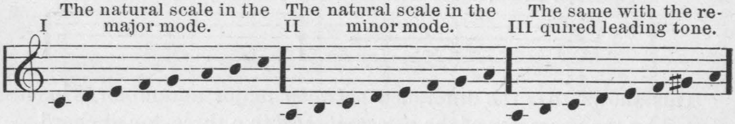


In the change from Major to Minor, two of the three principal chords, Tonic and Subdominant, undergo alteration, that of the Dominant, which has for its principal third the leading tone, remains unchanged.

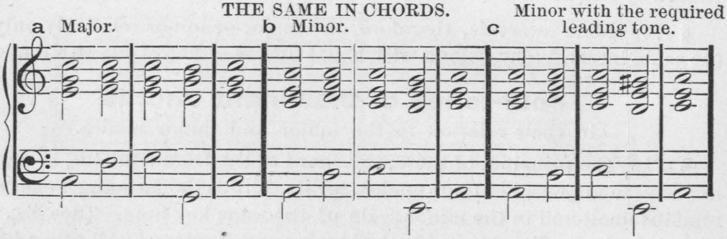
The Major and Minor Scale.

§ 179. The natural diatonic scale contains both the major and minor modes. In reality the major scale *is* the natural scale; the minor is accessory to the major scale, and formed from it.

Ex. 329.

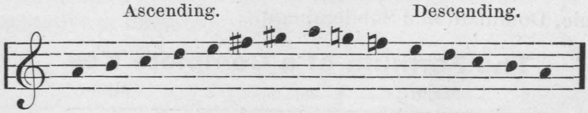

I
The natural scale in the major mode.
II
The natural scale in the minor mode.
III
The same with the required leading tone.

Ex. 330.

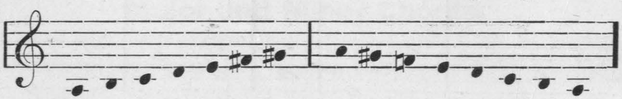


§ 180. The reader will now plainly perceive why the minor scale has its peculiar form, and why the augmented (extreme) second is one of its intervals. The minor scale, as we have it at III, is the fundamental modern minor scale. Augmented intervals, however, are rather exceptional in vocal writing, and the minor scale requires therefore some modification to make it more flowing, by removing the extreme second between the sixth and seventh tones. The flowing is the result of vocal necessity.

VOCAL MINOR SCALE.



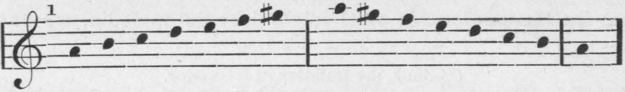
Many musicians regard the descending extreme second as not unsympathetic and admit the vocal minor scale in the following shape:



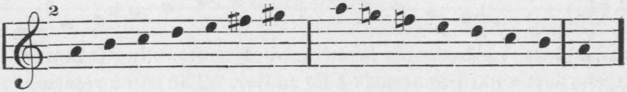
We prefer to reject this scale, as an unnecessary mixture of the harmonic and melodic (vocal) minor scales, and as inconsistent with the original object of the vocal minor scale.

Harmonic Minor Scale.

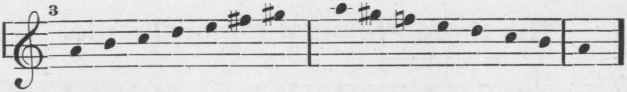
Ex. 331.



Melodic Minor Scale.



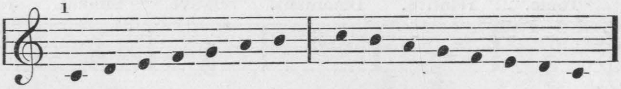
Mixed Minor Scale.



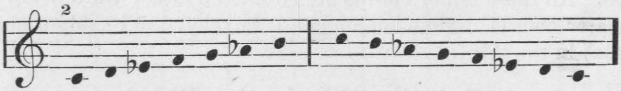
NOTE.—The Melodic or Vocal Minor scale is formed of two nearly perfect Major Scales. Ascending, it strongly resembles A major, and descending, it contains the seven natural tones of C major. At Ex. 328 we obtained the minor mode by lowering the 3d and 6th of the Formula in the major mode. At Ex. 330 the minor chords were formed of the seven natural tones of the major scale. The process of obtaining the minor mode differs in these two cases, but the result is the same. In each case two of the three principal chords have minor principal thirds, while the third chord, that of the Dominant, remains unaltered. In the same manner a minor scale may be formed by lowering the 3d and 6th tone of any major scale by a semi-tone, or else a *relative minor* scale may be fonnd a minor third below any major scale.

Major Scale of C.

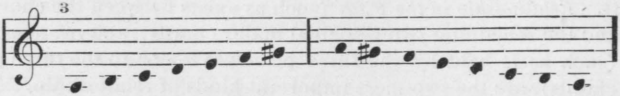
Ex. 332.



Minor Scale obtained by lowering the Third and Sixth.



A Minor, the Relative Minor Scale of C major.



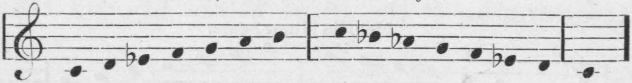
The Vocal Minor Scale is a modification of the Harmonic Minor Scale, as mentioned before, and may be formed of either of the two Minor Scales at Ex. 332, Nos. 2 and 3.

§ 181. Both Minor Scales at Ex. 332 are closely related to C major, but A minor properly bears the name of the Relative Minor Scale of C major.

C minor with its flats leans more to E♭ major, and is its relative minor. By changing the Harmonic scale of C minor into the melodic, we obtain the following:

C minor, the Relative of E♭ major.

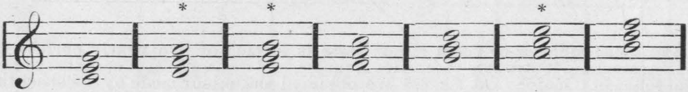
Ex. 333.



This produces, *ascending*, a scale strongly resembling C major, and *descending*, the seven natural tones of E♭ major. The same relations are held between the other major and minor scales.

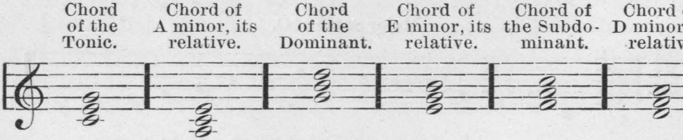
The three Principal Minor Chords.

Ex. 334.



§182. Among these seven Triads formed by natural tones upon the seven tones of the scale, three are major and three are minor. The three major chords of Tonic, Dominant and Subdominant are familiar to the reader. The three minor chords are the relatives of the three major chords.

Ex. 335.


Chord of the Tonic.
Chord of A minor, its relative.
Chord of the Dominant.
Chord of E minor, its relative.
Chord of the Subdominant.
Chord of D minor, its relative.

§ 183. All these minor chords are situated a minor third below their related major chords. Each major chord is related to its minor chord (and *vice versa*) in the third.

Relationship in the Third.

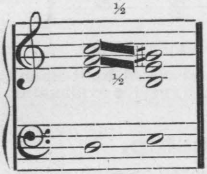
§ 184. *Relationship in the Fifth* (such as exists between the chords of the Tonic and the remaining two principal major chords), and *relationship in the Third* (such as is held by the three principal major to the three principal minor chords), are the two most important kinds of relationship.

§ 185. All chords of the same key (for instance of C), which are related to each other in the 3d, have two tones in common. From this we might, at first sight, conclude that they are more closely related than those related to each other in the 5th, which have but one tone in common; this however is not the case, but it may be truly said that they bear a greater *resemblance* to their relatives, if not greater relationship. The very fact that chords, related in the 5th, are more *contrasted*, makes their relationship one of greater significance.,

Relationship of the three Minor Chords among each other.

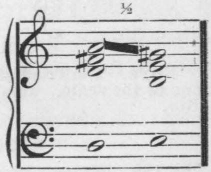
§ 186. The three minor chords hold the same relationship among each other as that which enchains the three major chords, i. e., there exists among them relationship in the Fifth. The chords of the *Dominant* (with leading tone) and *Subdominant*, though unrelated, follow each other much more easily than those of the major mode, because they have the additional *melodial* bond of a half step.

Ex. 336.



Were we to write this in the same key of the *Major mode*, there would be but *one* half step.

Ex. 337.

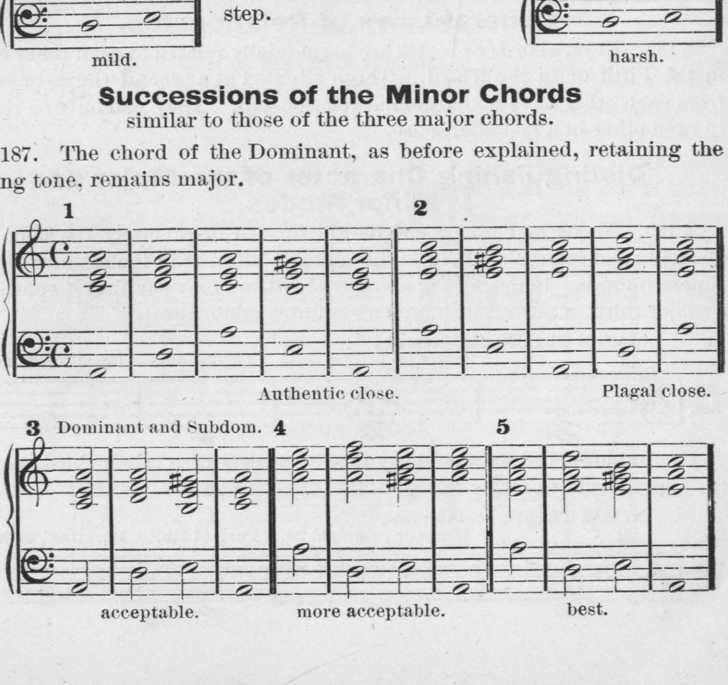


Successions of the Minor Chords

similar to those of the three major chords.

§ 187. The chord of the Dominant, as before explained, retaining the leading tone, remains major.

Ex. 338.

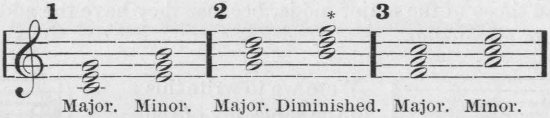


NOTE.—Taken as in the A minor key, independent of that of C, the chord of A minor is the chord of the Tonic, and the other two are its Dominant and Subdominant. But were these chords merely to occur temporarily in a chord series in the key of C major, they would then be accessory and relative (modulating) chords only, not chords of the Tonic, Dominant and Subdominant.

Other Chords related in the Third.

§ 188. There are chords related in the third to the three major chords, situated a major third above them. These are likewise closely related, but in a less degree than those situated a minor third below, for they have not the foundation tones of their relative major chords in common.

Ex. 339.



NOTE.—The Triad at 2, marked with a star, is the 3 toned chord built upon the 7th tone of the scale. It is called the Diminished Triad, and will receive explanation hereafter.

General Laws of Relationship.

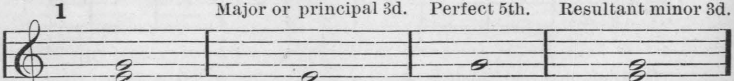
§ 189. Keys, chords or scales are harmonially related to each other either in the Fifth or in the Third. Those situated at a second (large or small) from each other have no harmonial relationship. They can only be related to each other in a melodial sense.

Distinguishing Character of the Major and Minor Modes.

§ 190. Major and minor chords are formed of precisely the same tone elements and intervals, these latter merely differing in the manner of their superstructure. In describing a major chord, we may say that it consists of a major third, a perfect fifth, and a resultant minor third.

MAJOR TRIAD : Its intervals.

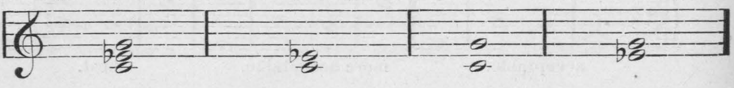
Ex. 340.



Of a minor chord we would say that it consists of a minor third, perfect fifth, and resultant major third.

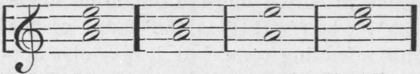
MINOR TRIAD: Its intervals.

Ex. 341.



Or taking the relative minor chord of C for an example:

2 b. A minor.



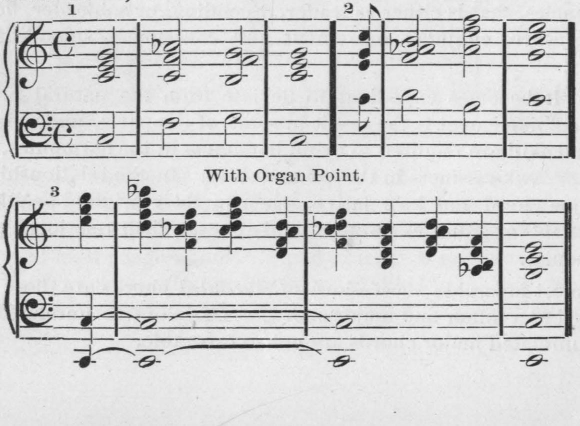
§ 191. The Major third is strong, bright and full of life; the Minor third subdued, sympathetic and tinged with melancholy. These characteristic traits may further be varied and shaded by the aid of contrasted consonant and dissonant harmonies, and by the power of melody and rhythm.

The character of a chord depends consequently entirely upon its principal third, its only diatonically *alterable* interval. Examining the three principal chords of a complete key, we find that there are only two intervals diatonically alterable, namely the principal thirds of the chords of the Tonic and Subdominant, that of the Dominant being exempt of alteration since it consists of foundation and leading tone. Thus we see that the difference between the major and minor modes—investing them with such striking characteristics—resides exclusively in the two alterable thirds of the chords of the Tonic and Subdominant. We can also understand now why the minor scale must have its well known peculiar succession of tones.

A Hybrid Mode.

§ 192. There is a mixture of the major and minor modes possible, frequently used by modern composers. It is of a character exceedingly impressive and well suited for dramatic effect. The classical writers have occasionally introduced it. We find it by fragments in the Adagio of Beethoven's Sonata, op. 31, No. 2. In this hybrid, or mixed mode, the 6th is minor (principal third of Subdominant), and the third ~~major~~ minor (principal third of the chord of the Tonic):

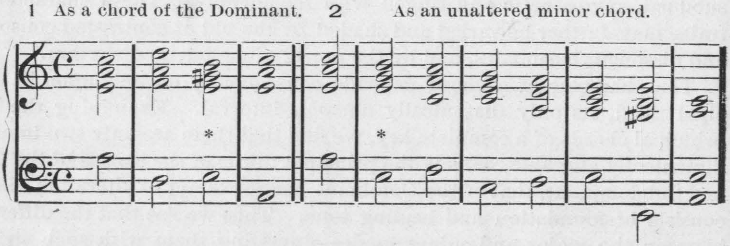
Ex. 341.



The Second Principal Chord of the Minor Mode.

§ 193. The second principal chord of the minor mode (that of E minor in the key of A minor), when acting as the chord of the Dominant, has its third converted into a leading tone, but it may also appear as an unaltered minor chord.

Ex. 342.

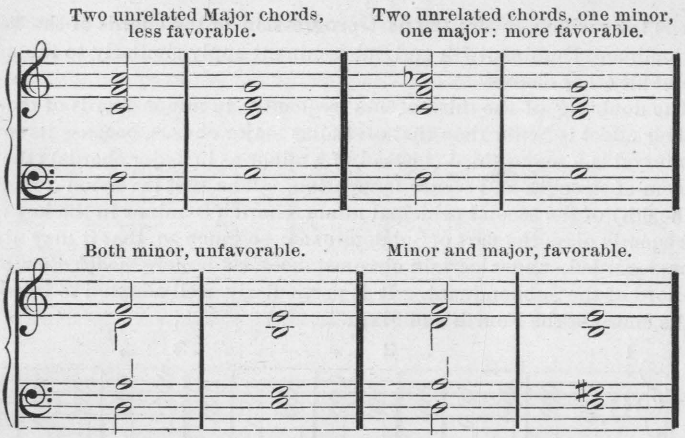


Chord Series introducing the Major and Minor Chords.

§ 194. The number of chord combinations, without resorting to suspensions, anticipations and other devices for harmonial variety, is inexhaustible, hence it would be futile to attempt here anything like their complete enumeration. We therefore confine ourselves to such examples as are typical, and to point out the laws which underlie the formation of favorable progressions.

1. In all chord combinations the natural progressions are those in which the semi-tones (half steps) are allowed to move according to their inherent tendencies, that is either as leader, ascending, or subleader, descending. This ensures conjunct movement and consequent smoothness of the voices.
2. When it becomes expedient to deviate from the natural progression, disjunct movement is the result in some of the parts, and it is here that art and skill are required to avoid harshness in the harmonies, and hardness or awkwardness in the progressions. In the relationship between a major chord and its relative, when in their original positions, there are no ties or affinities through semi-tones. Their relationship is purely harmonial.
3. The most favorable successions of *unrelated* chords are those which are formed of a minor and major chord. Those of two unrelated minor or two unrelated major chords are not so favorable.

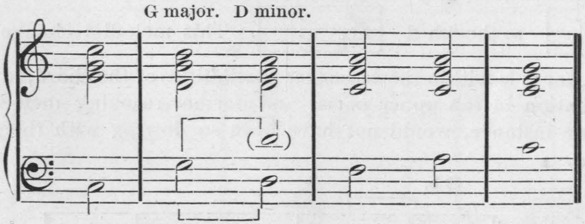
Ex. 344.


Two unrelated Major chords, less favorable.
Two unrelated chords, one minor, one major: more favorable.
Both minor, unfavorable.
Minor and major, favorable.

4. All relationship between major and minor chords is in the third, except that between the chord of the Dominant and the third principal minor chord, which is in the fifth. These are, in the key of C, the triads D minor and G major.

Relationship in the Fifth between a Major and Minor Chord.

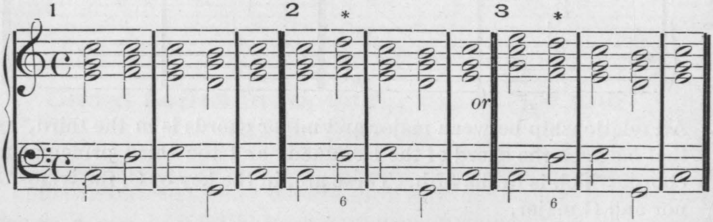
Ex. 345.

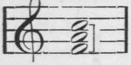
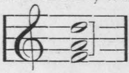


5. The principal mission of *chord–inversions* is to render the Bass more flowing and give it variety. Caution should therefore be used when associating, in the Bass part, *disjunct* movement with inversions, easily resulting in hard progressions. Some practice is necessary to acquire a correct feeling for beautiful progressions of this kind. It is one of those points of *real art*, which science is scarcely able to explain with exactitude.

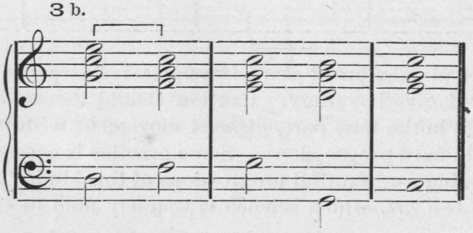
6. The laws which govern the part-progression of the chords of the Tonic, Dominant, Dominant 7th and Subdominant apply similarly to the minor and all other chords.
7. The doubling of the third occurs frequently in minor chords of the 6th; their effect is better than that of similar major chords, because its lowest interval is a major third (instead of a minor as in major chords) : the emblem of strength and secure foundation. The first inversion (chord of the 6th) of the second principal minor chord (D minor in the key of C) freqently plays the part of Subdominant; so much so, that it may almost be regarded, under certain circumstances, as a mere *modification* of the chord of the Subdominant. It is particularly well adapted to introduce the chord of the Fourth and Sixth.

Ex. 346.



This chord of the 6th (marked with a star) does not in any way sound like a minor chord; it has entirely the character, and performs the functions, of a major chord of the Subdominant, with a melodial change from the 5th **c**  to the 6th **d** . This melodial change is a natural one, for it is within the *consonant* possibilities of the chord, in the pleasing animation in the upper parts, and farther reaching melodic power. No. 3, for instance, would not have been so flowing with the plain Subdominant.

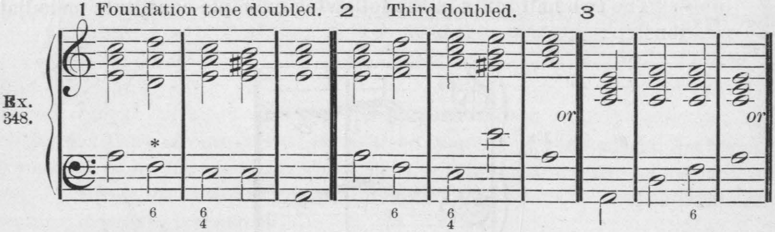
Ex. 347.



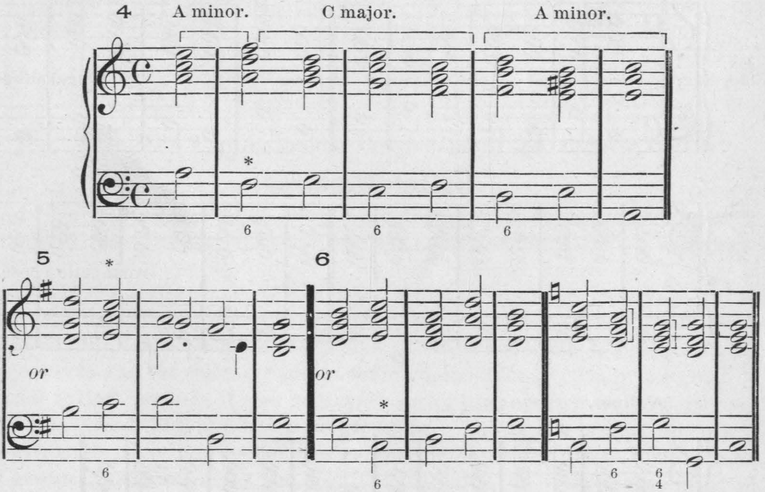
The student should therefore regard this chord, when associated with major chords, as a chord of the Subdominant which has undergone a melodial change.

The minor chord of the 6th proper would be associated with minor chords and come in the following manner, for instance:

Ex. 348.



: in a minor key with momentary modulation (see Modulation) to the relative major by means of the same chord of the 6th, with return to the first minor key.



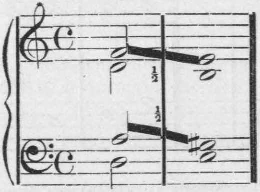
NOTE.—The combination in the last three measures of the preceding example, in the key of C, cannot be used on account of the consecutive Fifths.

8. As the minor chords form part of the Triads built upon the seven tones of the major scale, they may occur in major keys without thereby effecting a passage into a complete minor key. A minor key can only be considered established or complete when the three principal chords of Tonic,

Dominant with leading tone, and Subdominant have been brought in, acting in concert. That would constitute a modulation into A minor.

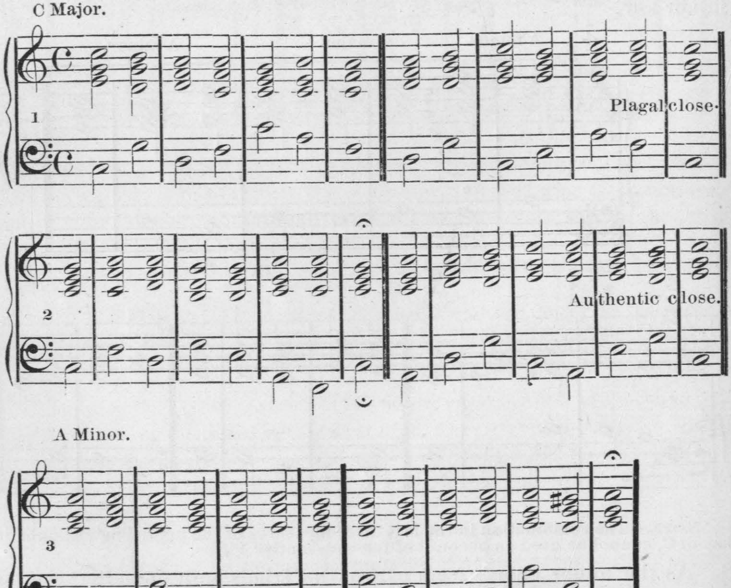
9. *Melodial* relationship refers to the beautiful progression of single parts in harmonies, but more especially to the presence of sympathetic half tones. The two half tones in the following example constitute melodial relationship:

Ex. 349.

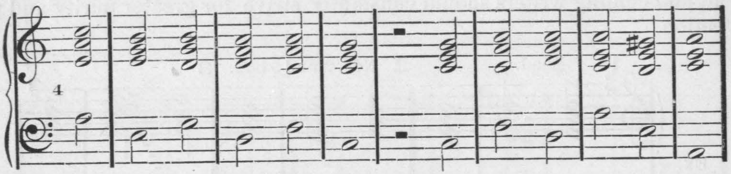


Chord Series upon Foundation Tones.

Ex. 350.



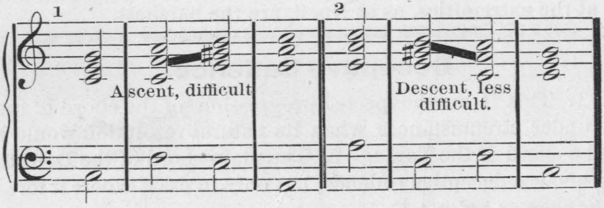
(Ex. 350 continued.)



Extreme Second.

§ 195. The extreme second introduced into the minor scale by the transformation of its 7th tone into a leading tone, should generally be avoided in vocal writing, on account of its difficulty of intonation. In instrumental writing it occurs frequently.

Ex. 351.



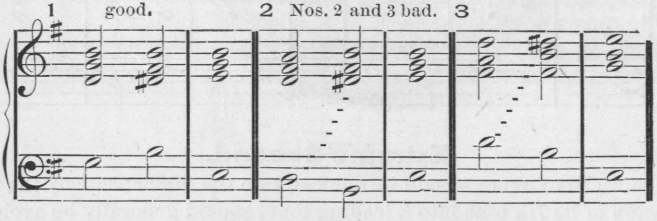
Both Nos. 1 and 2 are acceptable instrumentally, but difficult vocally.

Cross-Relation.

§ 196. This is a progression arising from the chord of the Dominant of the minor key, which jars upon the ear and should be avoided, especially when the parts move diatonically. In free instrumental *chromatic* style it is not always disagreeable, but even there discrimination is necessary. It is true that we find occasionally very harsh cross relations in the works of great masters, but that is no reason why present writers should not endeavor to be more perfect in the finer details of their compositions. There are great or gifted writers, such as Weber or Meyerbeer for instance, whose writings contain many unskillful and harsh progressions. The result is that the world of art, while according to such composers the high rank due to them as men of genius, justly criticises the lack of perfection which excludes many of their works as faultless and useful models to the serious student. It is this very perfection of detail so intimately associated with the greater virtues of purity and nobility of purpose, symmetry of form, and depth or delicacy of thought, which makes such wonderful men as Bach or Beethoven tower high above those just named, or the Italians of the modern school.

The progress and higher development of art likewise demand that present and coming writers should constantly strive for greater purity and perfection.

Ex. 352.



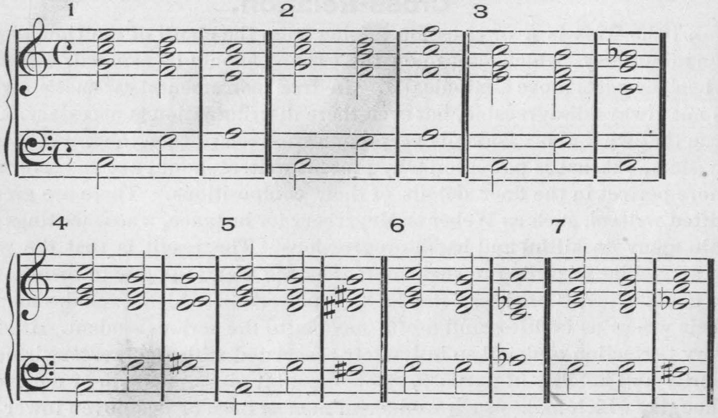
No. 1 is good, because **d♮** and **d♯** occur in the same part, and do not clash. The same tones occuring in different parts, sound harshly; those occuring at the extremities, as at No. 3, are the harshest.

Deceptive Cadence.

§ 197. 1. This is an unexpected progression of the chord of the Dominant 7th, under circumstances when its natural resolution would have resulted in the chord of the Tonic. 2. The plain chord of the Dominant may also bring about a deceptive cadence, but only in cases where it foreshadows an *authentic close or cadence.*

Deceptive Cadences of the chord of the Dominant 7th.

Ex. 353.

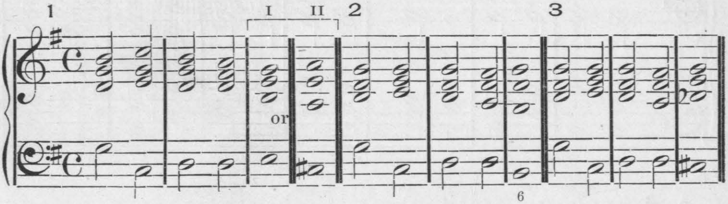


many more are possible.

Nos. 3, 4, 5, 6 and 7 of Ex. 352 are progressions resulting in *modulations*; they are given for the sake of completeness.

Deceptive Cadences of the chord of the Dominant.

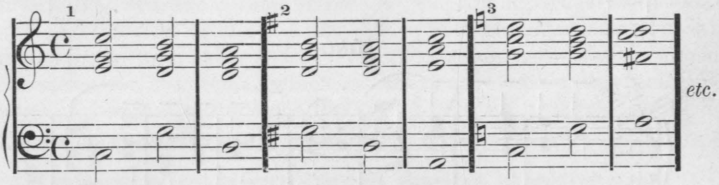
Ex. 354.



No. 2 is also generally regarded as a deceptive cadence; the original position of the chord of the Tonic is expected at the close, but the chord of the 6th is given instead.

§ 198. The following examples are no deceptive cadences, because the chord of the Dominant may, as it does here, form alliances with chords other than that of the Tonic.

Ex. 355.

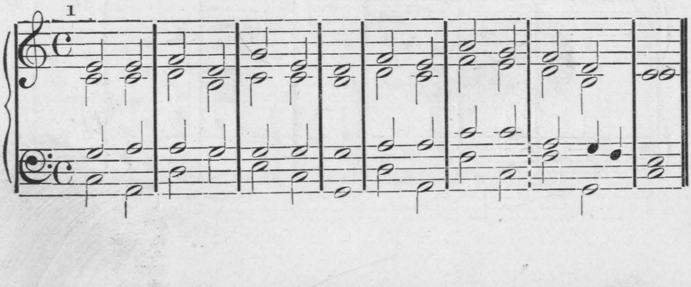


§ 199. The chord of the Dominant 7th of the minor mode is identical with that of the major mode, in its tendency, resolution and progressions.

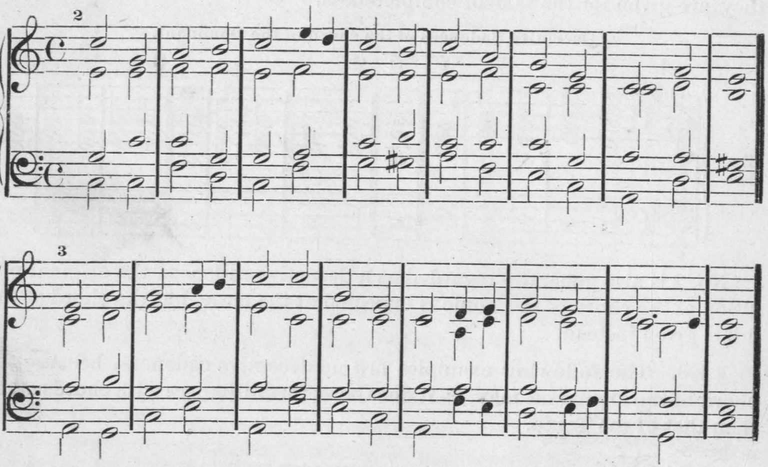
Chord Series with Inversions, Suspensions, Passing tones, Imitations, etc.

MAJOR.

Ex. 356.

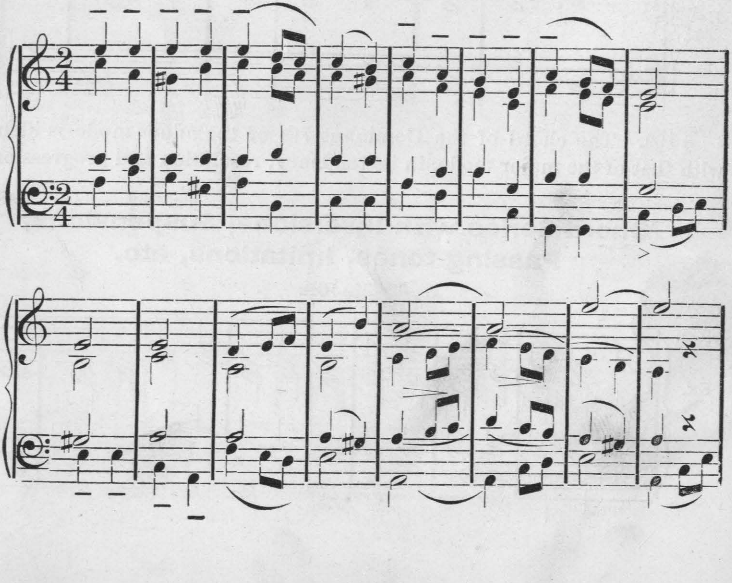


(Ex. 356 continued.)

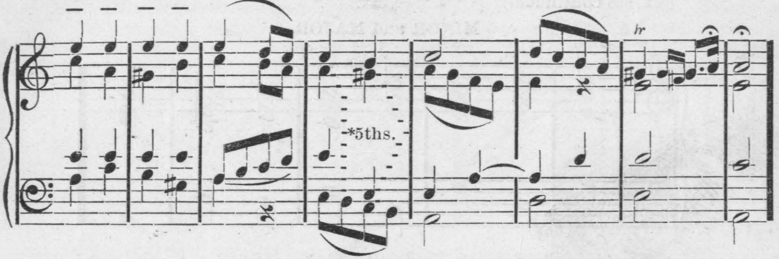


MINOR.

Ex. 357.



(Ex. 357 continued.)

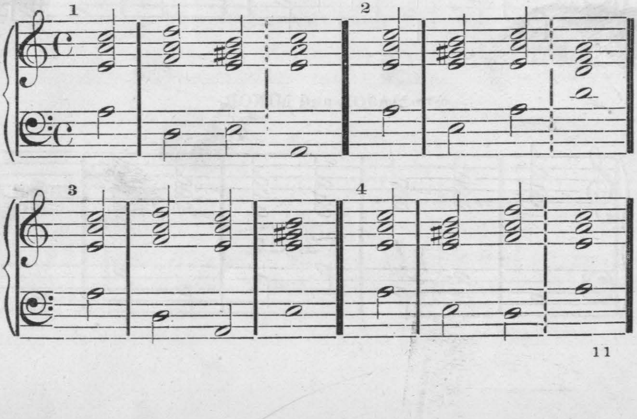


By the use of prepared or unprepared single and double passing tones—filling up the spaces between otherwise disjunct intervals—an occasional suspension, and an anticipation at the close, the chord series in the key of A minor at Ex. 357 is constructed into a very acceptable short piece. The minor mode is sufficiently relieved by short sections in the relative major key to save it from too long continued depression of general tone; but the minor mode nevertheless predominates, as it should, in a piece written in a minor key. The Soprano entones the theme, then the Bass makes some kind of response, joined in by the Soprano. Very soon the middle parts speak, and predominate for a short space. The Bass seizes a favorable moment to reintroduce the first topic, which is maintained—with rather animated exchange of thought—to the end. The 5ths at * are really no 5ths, one being an extreme interval, practically equivalent to a minor 6th.

Examples of short Chord Series in either or both modes.

MINOR.

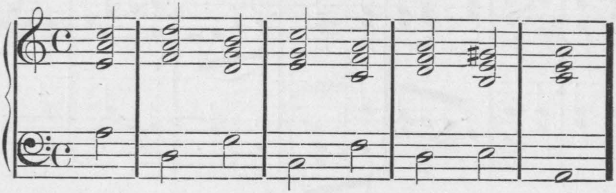
Ex. 358.



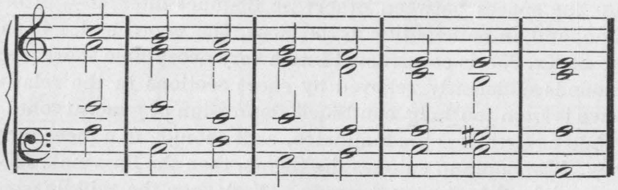
(Ex. 358 continued.)

MINOR and MAJOR.

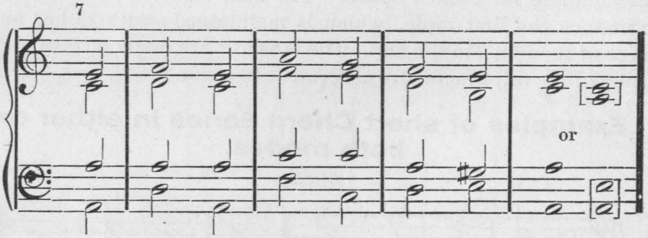
5



6

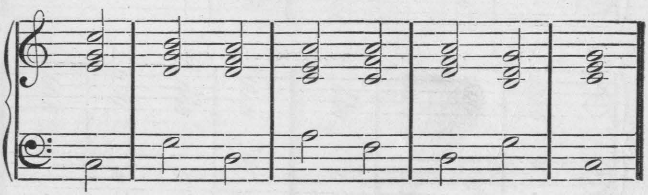


7

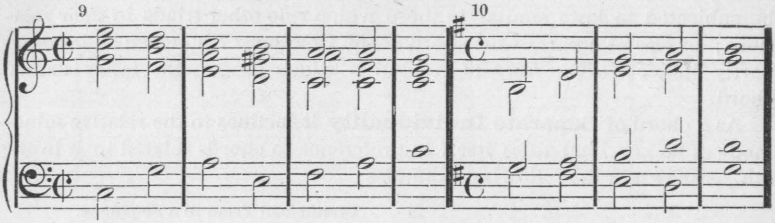


MAJOR and MINOR.

8



(Ex. 358 continued.)

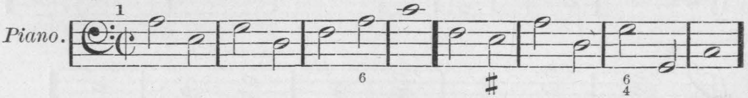


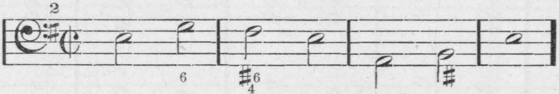
In cases like No. 10 two voices may sing in unison.

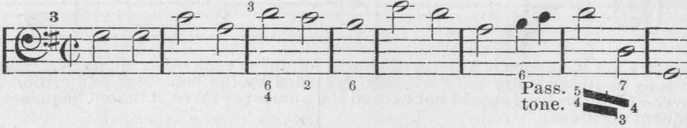
EXERCiSES.

BASSES FOR SIMILAR CHORD SERIES.

Suspensions, Passing tones and Imitations may be introduced, or omitted, according to acquired ability.





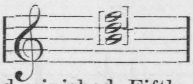


The Diminished Triad.

§ 200. The 7th chord, the diminished Triad, is built upon the leading tone of the scale. It consists of two minor thirds

Diminished Triad.

Ex. 359.

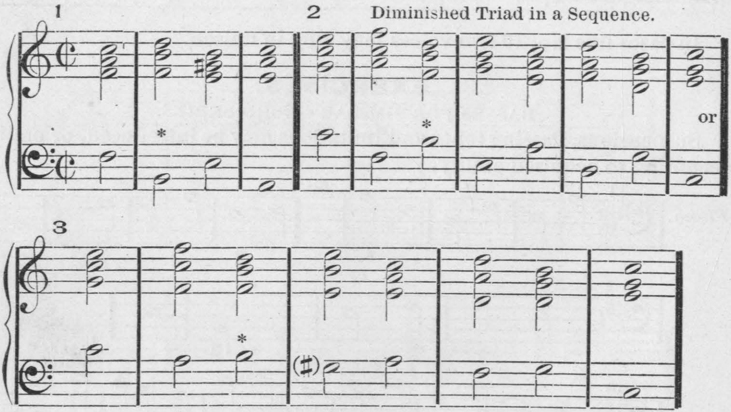


and is encompassed by a diminished Fifth (see Intervals—Preparatory Study). It differs materially from other 3 toned chords, and requires special care in its treatment. The major and minor chords thus far used, contain each a major and minor, or minor and major third, and to these contrasted intervals is due their beauty, importance and utility. The Diminished Triad, containing two thirds of the same kind, is capable of two interpretations.

It may be considered as a chord with an inviduality of its own, and as such be subjected to laws similar to those which rule other triads in their relations; or else as a part of the chord of the Dominant 7th, when it becomes partly subject to the laws of resolution which govern the latter named chord.

As a chord of **Separate Individuality** it inclines to the relative minor mode of its key, and allies itself in preference to chords related to it in the 5th, as shown in the following examples:

Ex. 360.

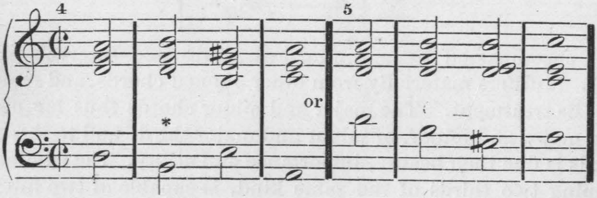


NOTE.—A Sequence is a series of chords following each other similarly. Sequences, too long continued, are not favorably regarded by the composer and critic. Similar movement of this kind should not exceed the number of three. Limited Sequences are of frequent occurence.

The diminished Triad as a chord of distinct individuality, when in its original position, is a somewhat unsatisfactory chord, and unless brought in very smoothly, is more or less harsh of sound. The result is that it is not frequently introduced in its original position.

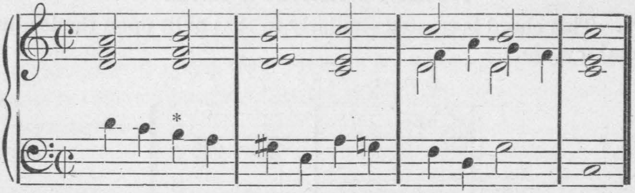
Another example:

Ex-361.



(Ex. 361 continued.)

No. 5 improved by a figured Bass.

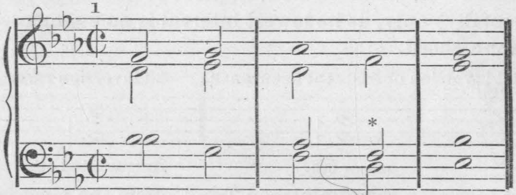


Diminished Triad as a part of the Chord of the Dominant 7th.

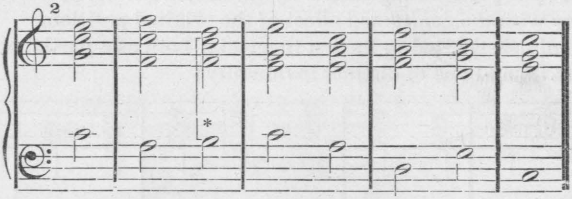
§ 201. As such it has a tendency to associate itself with major keys, unless formed upon the 7th tone of the minor scale (see Ex. 363). Containing, as it does, both the leading and subleading tones, its sympathies are obvious. Some license however is accorded to these parts, especially when the chord occurs in its first inversion (see Ex. 365).

Kufferath.

Ex. 362.



At No. 1 leading tone (d) ascends, subleader a♭ descends.



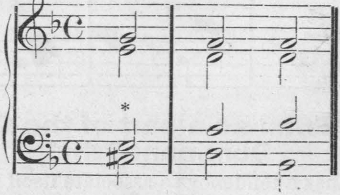
At No. 2 the leading tone (the foundation tone of the chord) is doubled, one of the two must therefore descend. It will be perceived 1) that the doubling does not sound particularly well; 2) that Kufferath avoided the doubling of the leading tone; 3) that these two examples clearly indicate the best manner of treatment of the Diminished Triad in its original position, when used as a partial chord of the Dominant 7th.

Diminished Triad upon the Leading Tone of the Relative Minor Scale.

§ 202. This chord is treated similarly to that built upon the leading tone of the major scale.

Kufferath. 1818—1896

Ex. 363.

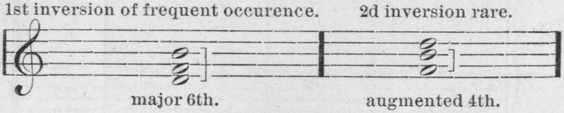


This example is in the key of D minor, the relative of the key of F major.

Diminished Triad in its Inversions.

§ 203. In the first inversion it occurs frequently, and is indispensable as well as beautiful. In its second inversion it occurs rarely, and then passingly (incidentally) only, as its lowest interval is an augmented 4th, a poor foundation for a chord.

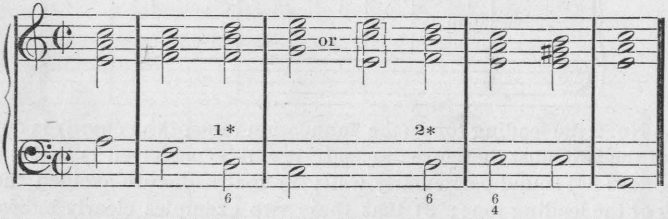
Ex. 364.



In its first inversion the diminished Triad offers the most favorable combination, because it is strengthened by the major 6th which encompasses it, doing away with the contracted effect of the original position.

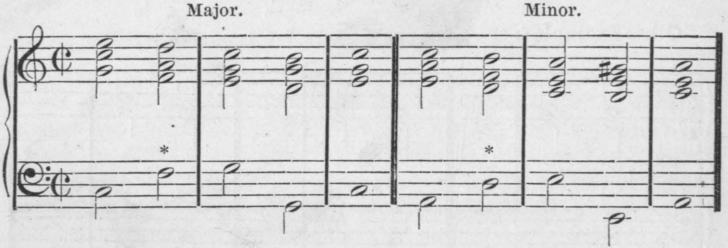
The Diminished Triad in its first inversion, both as a partial chord of the Dominant 7th, and one of distinct inviduality:

Ex. 365.



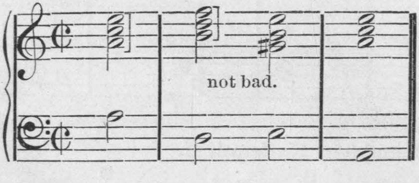
In this example the diminished Triad appears at 1* as a partial chord of the Dominant 7th, with leading tone ascending, and subleaeer descending or ascending *ad libitum.* At 2* the chord, although seemingly the same, appears as one of distinct individuality, acting as Subdominant to introduce the chord of the 4-6 of the relative minor key A. At 1* b is the leading tone, at 2* b has no longer that character. At 1* the diminished Triad is resolved into C major, at 2* it associates itself with the minor key. The Diminished Triad in its first inversion resembles the Subdominant with *melodial change* of the Major mode.

Ex. 366.

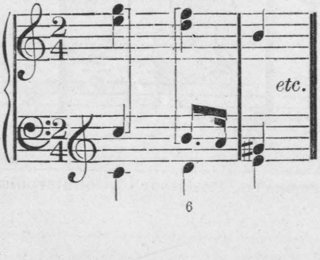


§ 204. In the following example there is a succession of prominent 5ths, which would seem to violate a rule. But it must be remembered that all 5ths are not bad. In this case the mitigating points are: 1) that one of the two is a diminished 5th, 2) that the counter-movement of the Bass assists to milden the effect:

Ex. 367

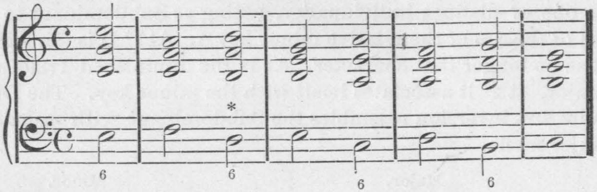


ROBERT SCHUMANN has used it in a similar way, in his Album, op. 68, No. 6, 3d measure: The Orphan:

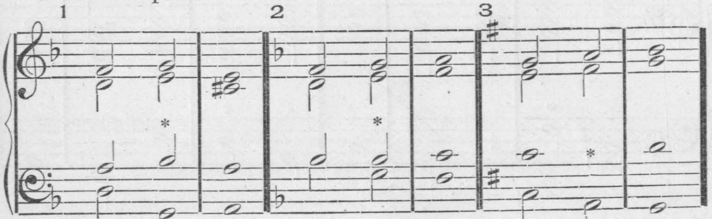


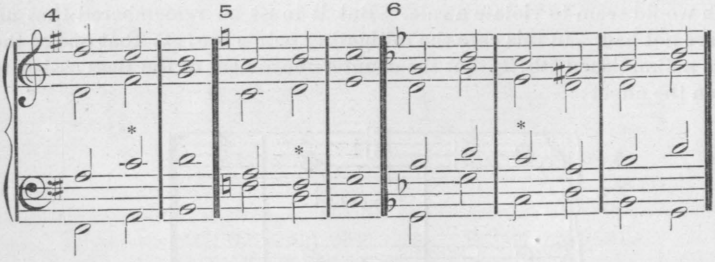
1st Inversion of Diminished Triad in a Sequence.

Ex. 368.

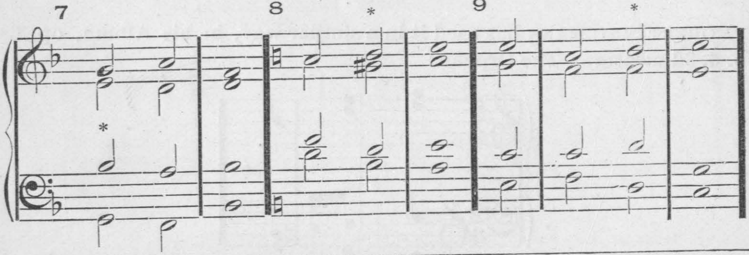


Other Examples:





(Nos. 5, 6, 7, 8 and 9 by Kufferath *).



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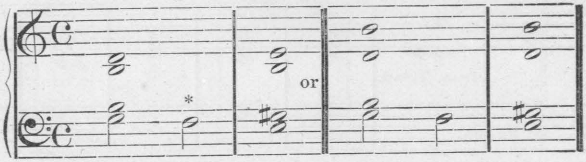
* H. FERDINAND KUFFERATH, Professor of Counterpoint and Fugue at the Royal Conservatory at Bruxelles.

Ex. 369.

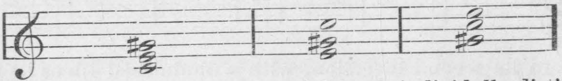


2d Inversion of the Diminished Triad incidentally.

The Chord of the Extreme Fifth.

§ 205. There is one more chord, built upon the 3d tone (mediant) of the minor scale: the chord of the extreme 5th. It has been used as an argument against the recently adopted system of "Altered chords", which dispenses with the difficult and limitless explanation of tone combinations which have undergone chromatic change, by waiving their exact chord status, and considering chromatic changes as merely incidental modifications. The practical composer will no doubt side with the system of "altered chords", because that is precisely the way in which he does modify, or enhance by contraction or expansion—whenever there is room for it—his harmonies.

Ex. 370.



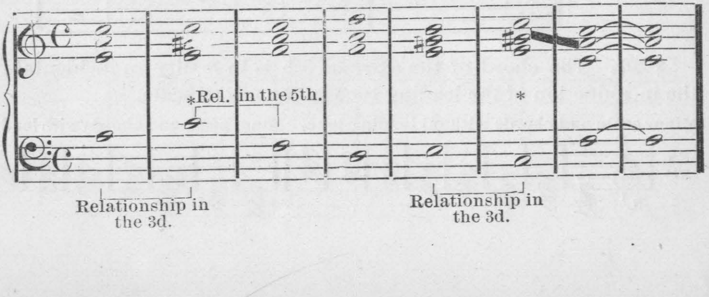
Chord of the extreme 5th. 1st Inversion. 2d Inversion.

The chord in question can be regarded as an individully distinct chord, but as such it offers a very limited field of legitimate contrasted association with other chords. As an incidental alteration of the chord of the Tonic it has no further claim as a separate chord, and may be utilized whenever convenient.

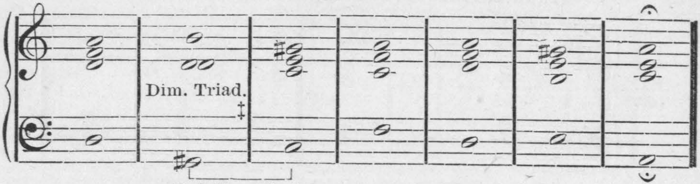
The Chord of the Extreme Fifth

in series illustrating its relationship in the Third and in the Fifth.

Ex. 371.



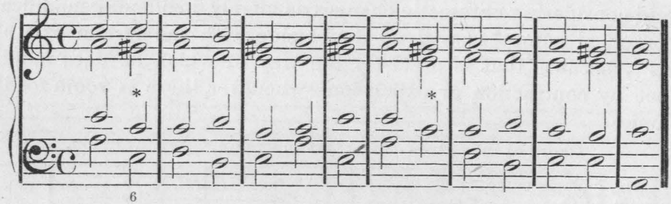
(Ex. 371 continued.)



We have endeavored in Ex. 371 to have the chord of the extreme 5th appear as a distinctly individual chord. Vocally such a combination of chord progression would offer serious difficulties. The progression in the Bass part at ‡ is particularly unsatisfactory and unvocal.

A Vocal example avoiding the more difficult combinations.

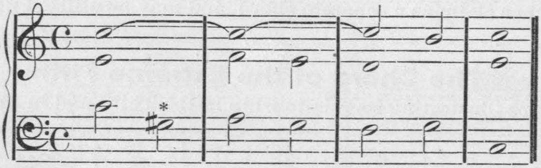
Ex. 372.



§ 206. In its second inversion, with a diminished 4th as its foundation, the chord of the extreme 5th is practicable incidentally only in the following manner:

3 Voices.

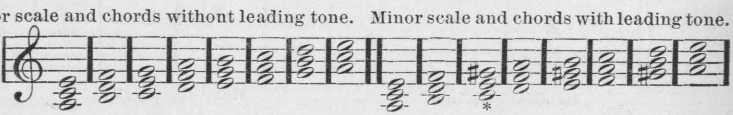
Ex. 373.



§ 207. The chord of the extreme 5th is in reality an incidental result of the introduction of the leading tone in the minor scale.

Minor scale and chords without leading tone. Minor scale and chords with leading tone.

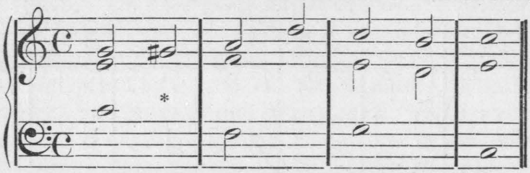
Ex. 374.



Introduction of the chord of the extreme 5th as an altered chord.

Ex. 375.

3 Voices.



The Chord of the Extreme Fifth

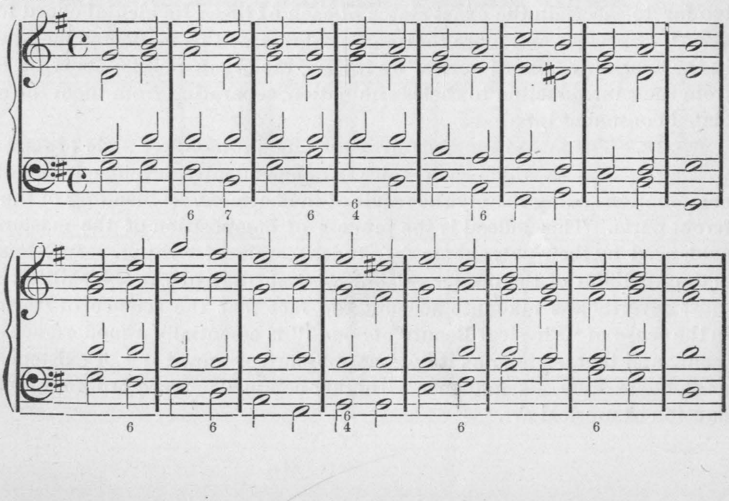
allied to unrelated chords.

§ 208. Its tendencies of resolution to related chords are so marked that unrelated combinations offer no very acceptable result.

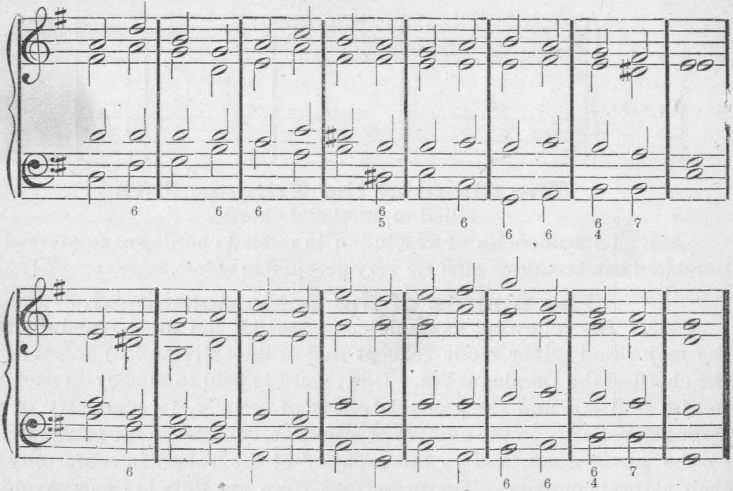
The Chords of the Scale combined.

§ 209. The following example comprises all the three-toned chords of the major and minor mode (except that of the extreme 5th) together with the chord of the Dominant 7th. Due regard is paid to fluency in each part, to rise and fall and the general beauty of melody, to symmetry of form through similarity in the number of measures, contrast in the pauses marked by the whole notes, and to the capacity of the voices in conformity with their natural compass. The prescribed rules are duly heeded: Avoidance of consecutive fifths and octaves, of cross relation and augmented intervals. The leader ascends, the subleader descends, except at such points were special law requires their departure from this rule. The two resources of repeating chords, and giving a new chord at each step, have alternately been made use of.

Ex. 376.



(Ex. 376 continued.)



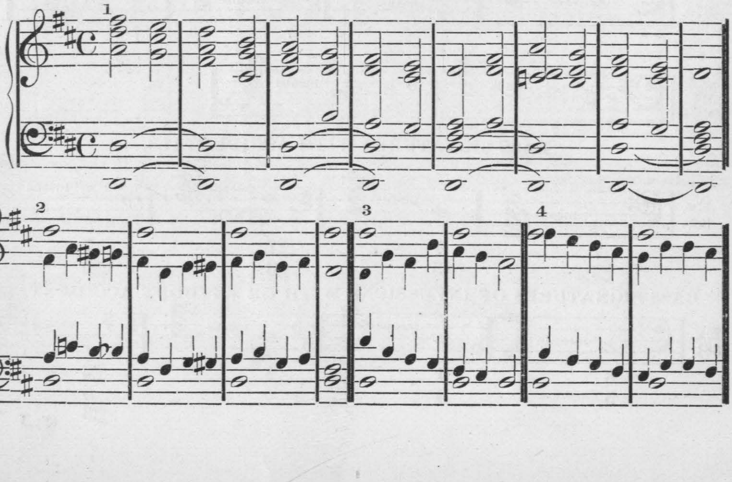
§ 210. A few examples are given for the formation of incidental chords by means of organ points and passing tones in different parts. These are fertile resources of composition, relieving the monotony of plain chords. Some of these incidental chords resemble chords of the 7th or their inversions, or other chords of even more extended compass. Research would go too far to ascertain the exact status of each of these incidental chord formations. Speedier and more thorough progress will be made by the student in the analysis of chord series, by tracing the organ points, short or long, from their introduction to their termination, separating from them the associated consonant intervals.

NOTE.—The most beautiful, greatest and profoundest style of four-part writing is that in which each voice is independently developed, the chord combinations being merely the result of the harmonious blending of the different parts. This indeed is the process of composition of the masters, as evidenced by their polyphonic (see Index) style of writing. *Part-thinking* is the attribute of the master, *Chord-thinking* that of the less skillful. We must nevertheless take into account the fact that the science of Harmony in the sense of "Physical Beauty of Sound" is essentially a modern achievement, and that, so long as it does not obscure or crowd out of existence the polyphonic style, its influence is highly conducive to the progress and expansion of musical art.

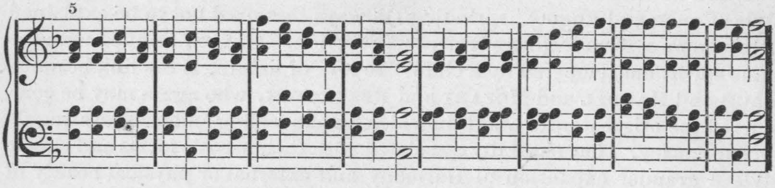
Bach and **Handel** are the representative writers of a perfect polyphonic style (Canon and Fugue), springing (in ways that need not to be explained here) from a deep feeling of religious devotion. **Haydn**, imbued with the same spirit, but tempered by a child-like love of nature, is the link between **Bach** and **Handel** and **Mozart** and **Beethoven**, who again may be considered the originators of a style in which human feeling and passion struggle for supremacy. They naturally associated with their artistic forms and classic style a grander expansion of Harmony and external or physical beauty of sound. **Mendelssohn** and **Schumann** followed in their footsteps—**Mendelssohn** reviving religious fervor, expressed in the more captivating accents of modern Melody and Harmony. **Liszt** and **Wagner** have sought to cultivate to the utmost boldness of Harmony, beauty of sound and development of material force. Lately **Kiel**, **Brahms**, **Rubinstein** and others have sought to combine to these external and dazzling qualities the depth and manyfold voicing of the old masters. This, therefore, is clearly the music of the immediate *future*, and it is gratifying to notice strong currents of this tendency everywhere in the great world of music—of Europe and to some extent in America. It may be added that the general musical public is not yet sufficiently cultivated to accept this style in opera, and that it is for the present confined to the oratorio, cantata, symphony and smaller instrumental and vocal works, which are recognised and supported by the most refined among the musical people.

Incidental Chords, by means of Organ Points, and Diatonic and Chromatic Passing Tones.

Ex. 377.



(Ex. 377 continued.)

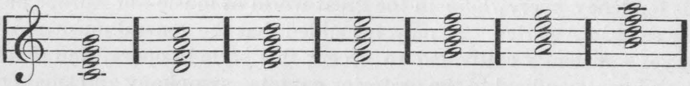


Four-toned Chords, or Chords of the Seventh.

§ 211. All four-toned chords are dissonant and require resolution, immediate or ultimate, into a three-toned chord. The principal four-toned chord, that of the Dominant 7th, is familiar to the reader. It is built upon the Dominant, the 5th tone of the scale. We will now consider the remaining six chords of the 7th.

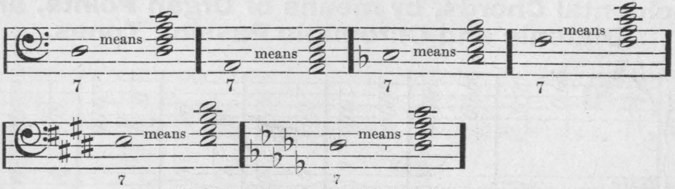
CHORDS OF THE SEVENTH BUILT UPON THE SEVEN TONES OF THE SCALE.

Ex. 378.



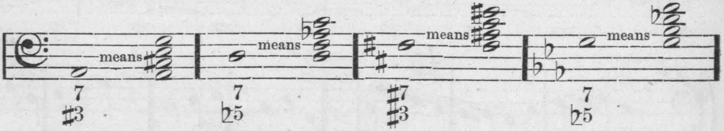
The figure 7 attached to any given tone, refers to one of these chords, providing the key be indicated by the proper signature (or its absence for the key of C).

Ex. 379.



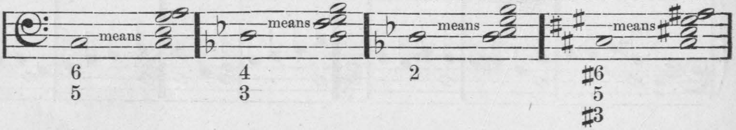
BASS SIGNATURES WITH ACCIDENTALS.

Ex. 380.



BASS SIGNATURES OF INVERSIONS WITH OR WITHOUT ACCIDENTALS.

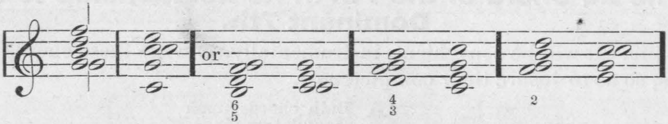
Ex. 381.



These examples will suffiice to make clear the meaning of Bass Signatures for the various chords of the 7th, if the reader is familiar with the different keys, as explained in the Primer.

§ 212. The chord of the Dominant 7th is the most important four-toned chord, because its natural resolution results in the chord of the Tonic.

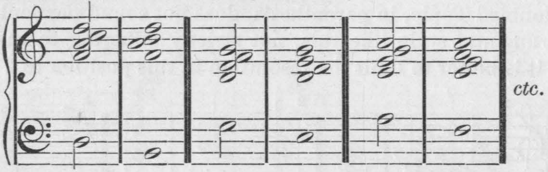
Ex. 382.



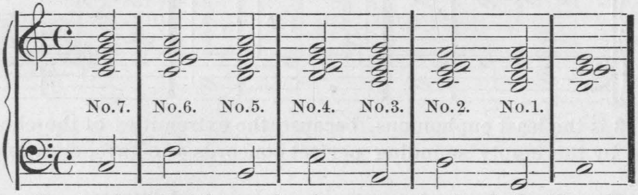
The remaining six chords of the 7th derive their comparative importance from the nearer or more distant relationship to the chord of the Dominant 7th. In other words, the further removed in relationship from the Dominant 7th, the less frequent their occurence, and the less important the part they perform in the system of chords.

The following chain of chords of the 7th shows their relative importance:

Ex. 383.


Not sufficiently contracted.

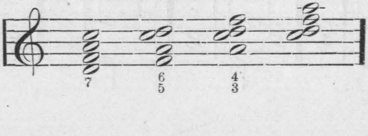
Ex. 384.



NOTE.—The chords of the 7th are related among each other in the 5th and in the 3d. The relationship in the 5th is important, that in the 3d of little value, because of their similarity, and poor progression. (See Ex. 383 above.)

Designating the chord of the Dominant 7th as No. 1, No. 2 would be that built upon the second tone of the scale. In the chain of chords just given, it is the one nearest the chord of the Dominant 7th, marked No. 2.

Ex-385.


SECOND CHORD OF THE SEVENTH.

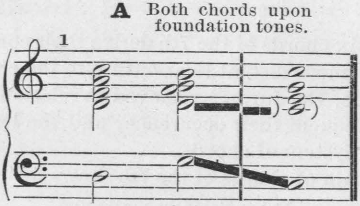
The 2d chord of the 7th occurs frequently in its original position, and still more frequently in the 1st inversion, the chord of the 5th and 6th. Next in order comes the 3d inversion, and lastly the chord of the 3d and 4th, (the 2d inversion. Practical examples will make this clear.

The 2d Chord of the 7th in its Relationship to the Dominant 7th.

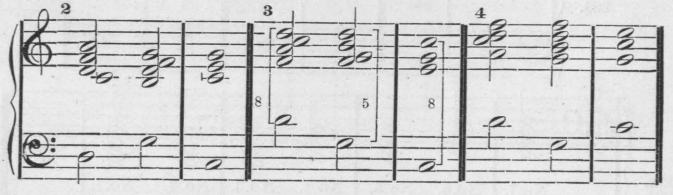
§ 213. It will be convenient, instrumentally, to write these chords in five parts, so as to insure their completeness.

Ex. 386.

Piano.



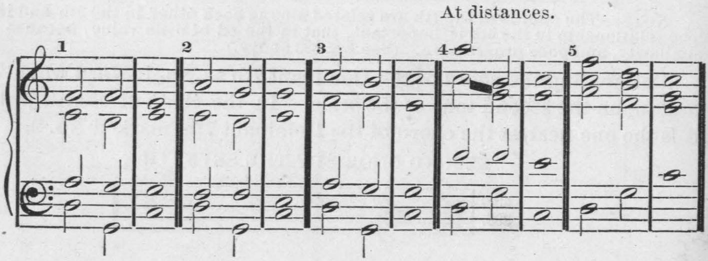
The doubled Tonic, in parenthesis, does not sound particularly well. In free instrumental style like this, not strictly adhering to an equal number of parts, it is better to limit the resolution in this position to 4 parts.



No. 3 is the least euphonious, because the extremities of the chords are formed by the empty sounding perfect concords of octave, fifth and again octave.

Ex. 387.

Voices.

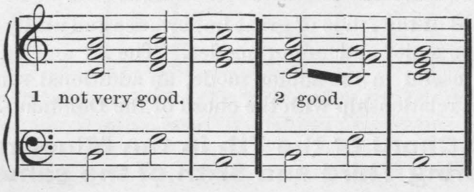


No. 4 in Ex. 387 is best instrumentally. Vocally the move from **c** to **g** is not smooth, because **c** is sympathetic to **b**, half a step below. From **c** to **g** is therefore not a natural progression.

§ 214. The natural progressions are the best in the part movements of the chords of the 7th. We give an example to establish the comparative merit of forced and natural progressions.

Forced progression. Natural progression.

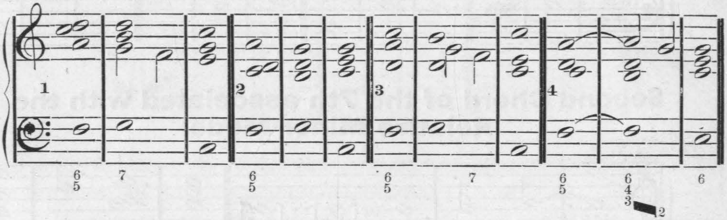
Ex. 388.



At No. 2 **c** is allowed to execute the sympathetic half step to **b**, hence the chords progress naturally and melodiously.

I. Chord of the 5-6. **B** Inversions of the 2d chord of the 7th.

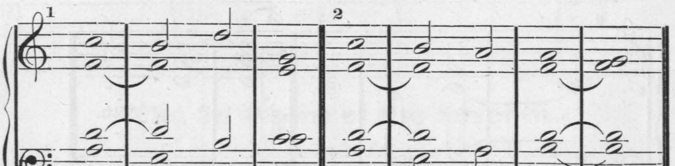
Ex. 389.



§ 215. The inversion of the chord of the 3-4 occurs less frequently, and leads to rather different results.

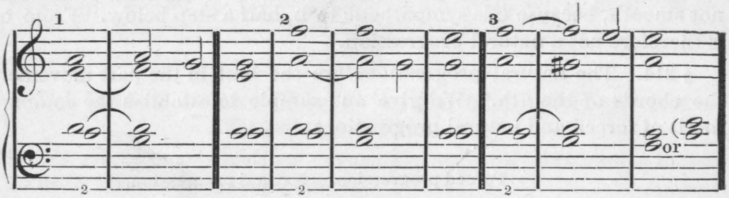
II. Chord of the 3-4.

Ex. 390.



III. Chord of the 2d.

Ex. 391.

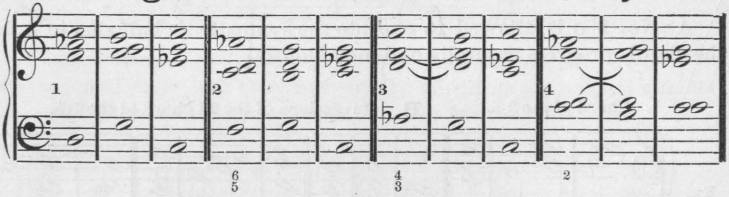


The 2d chord of the 7th is of great importance and utility in its 1st inversion, both in the major and minor modes. The 2d and 3d inversions are perhaps more useful in the minor mode, an additional semi-tone causing closer melodial relationship with the chord of the Dominant.

Second Chord of the 7th in the Minor mode, by lowering Third and Sixth of the same key.

C I.

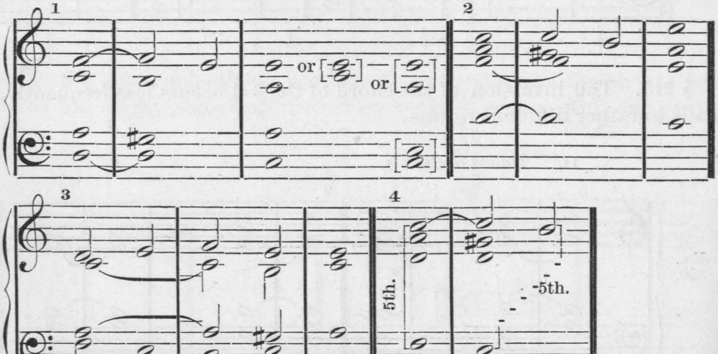
Ex. 392.



Second Chord of the 7th associated with the Relative Minor Mode.

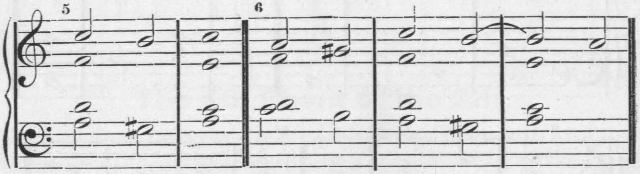
II.

Ex. 393.



The 1st inversion of the 2d chord of the 7th has a strong affinity for the chord of the Dominant of the major mode (see Examples at B I.), whence there is some difficulty in associating it with the relative minor mode. The consecutive 5ths at No. 4 are objectionable.

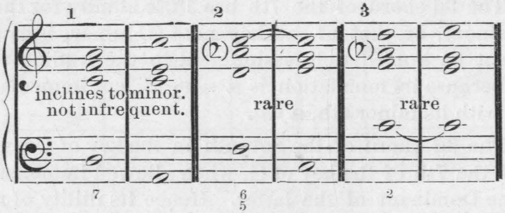
(Ex. 393 continued.)



The reader has observed that this 2d chord of the 7th does not incline to direct resolution into consonance. Its natural progression is to resolve into the milder dissonance of the Dominant 7th, which in turn seeks resolution into the perfect consonance of a three-toned chord. Nevertheless direct resolution of the 2d chord of the 7th is possible, but it is not of very frequent occurence.

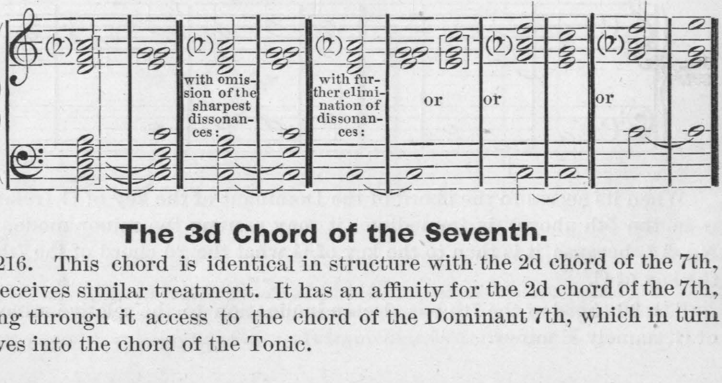
III.

Ex. 394.



Sticklers for exact chord systems may declare the chord of the 2d at No. 3 to be the chord of the 13th upon c, as follows:

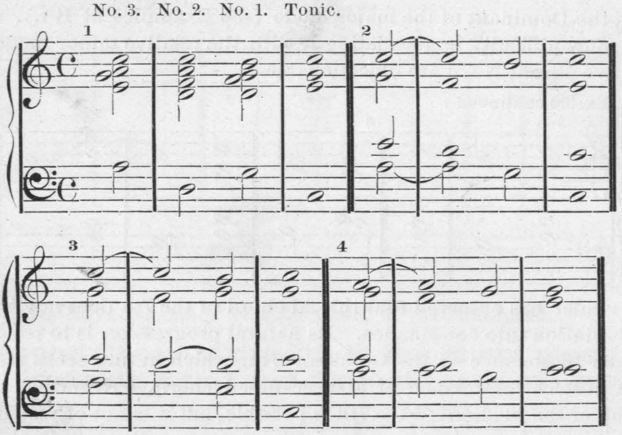
Ex. 395.


with omission of the sharpest dissonances:
with further elimination of dissonances:
or
or
or

The 3d Chord of the Seventh.

§ 216. This chord is identical in structure with the 2d chord of the 7th, and receives similar treatment. It has an affinity for the 2d chord of the 7th, seeking through it access to the chord of the Dominant 7th, which in turn resolves into the chord of the Tonic.

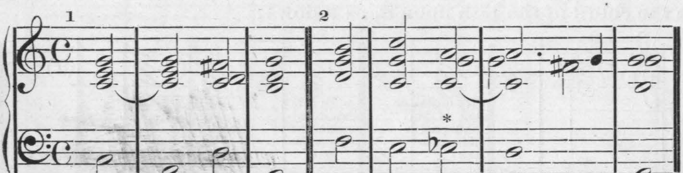
Ex. 396.



§ 217. The 3d chord of the 7th has little affinity for the relative minor mode (A minor), or that of the key note (C minor, because it contains **g** which cannot be immediately assimilated to the leading tone of A minor (**g♯**); and because its foundation is **a** *natural*, not immediately assimilable to **c** minor with its minor 6th, **a** *flat*.

§ 218. The 3d chord of the Seventh in the key of C is converted into a 2d chord of the 7th of the key of G, when allowed immediate access to the chord of the Dominant of the latter. Hence its utility of modulation into the key of G.

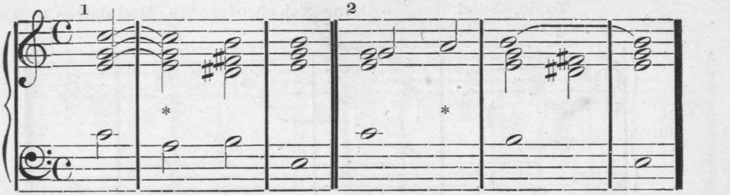
Ex. 397.



When its access to the chord of the Dominant of the key of G (related to **c** in the 5th above) is immediate, it may assume the minor mode, as at No. 2 *, because it is then to the key of G what the 2d chord of the 7th is to the key of C.

The 3d chord of the 7th has also an inclination to the relative minor key of G, namely E minor.

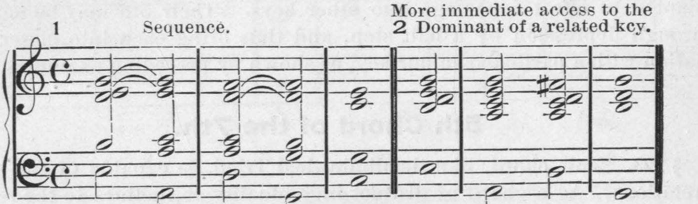
Ex. 398.



The 4th Chord of the 7th.

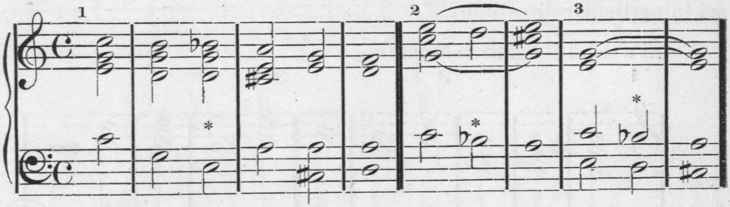
§ 219. The same remarks apply to this chord (identical with the 2d and 3d chords of the 7th). It may either seek gradual access to the chord of the Dominant 7th, so as to obtain final resolution, or it may be allowed speedier access to a chord of the Dominant 7th of a related key, in that manner becoming an agent of modulation. Its gradual access to the chord of the Dominant of its own key is not so acceptable, because resulting in *a sequence*, a progression of no *original* harmonial value.

Ex. 399.



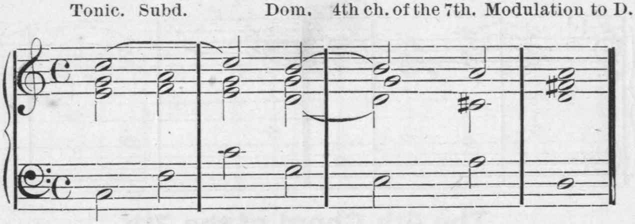
§ 220. This chord of the 7th may be so modified, as to incline it to the key of D minor.

Ex- 400.



§ 221. The chord under discussion might attain immediately the chord of the Dominant 7th of the key of D major, but it would not be an acceptable modulation, because the keys of C and D are unrelated. This will be clearly felt when the key of C is first established by its Dominant and Subdominant, with the modulation to D immediately following.

Ex. 401.



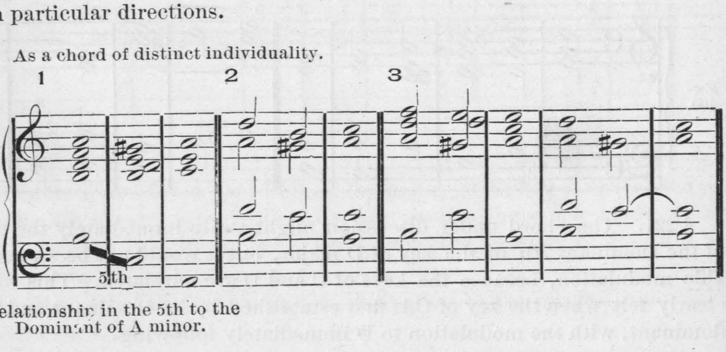
The reader will perceive that the key of D comes too soon, giving a striking example of *cross-relation* between two *keys*, one containing **c**, the other **c♯**, in a clashing manner.

§ 222. The 2d, 3d and 4th chords of the 7th are, as we have seen, of the same species in their construction and tendencies. They form consequently a distinct class of chords of the 7th. They are mildly dissonant, like all chords of the 7th, which are encompassed by a small 7th, and are admirably adapted to effect a passage into other keys. Their 5th may be modified through depression by a half step, and thus bring each into closer association with a particular minor key, as shown by preceding examples.

5th Chord of the 7th.

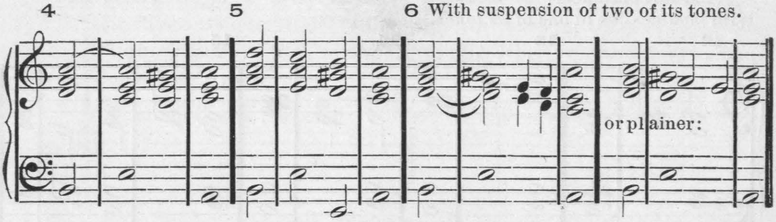
§ 223. This chord, like the diminished Triad, is capable of two interpretations. As a chord of distinct individuality it inclines to the relative minor key. As a part of the Dominant chord of the 9th (see chords of the 9th) it associates itself with the major mode. It is not as much as the preceding three chords one of modulation, because its tendencies are too firmly set in particular directions.

Ex. 402.



Relationship in the 5th to the
Dominant of A minor.

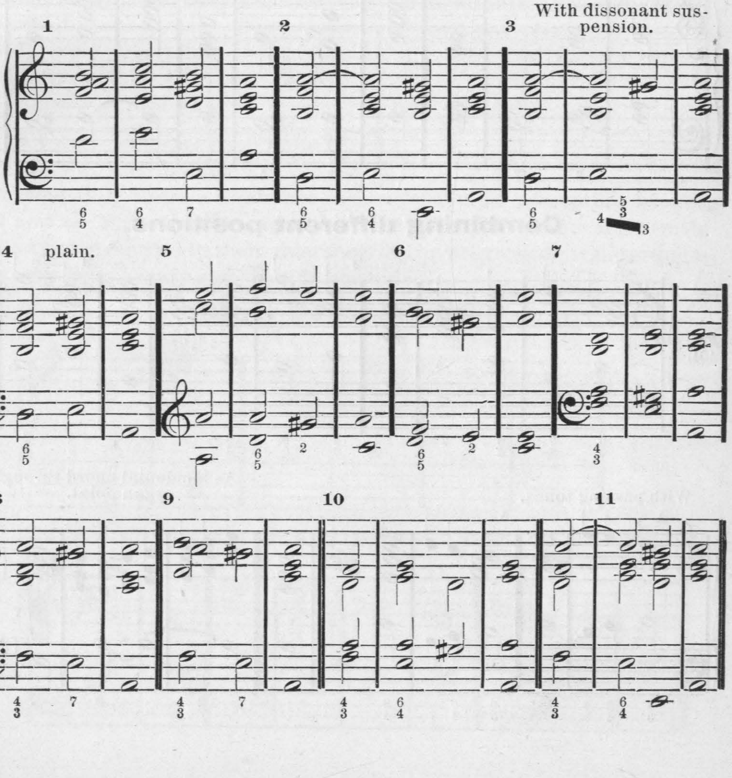
(Ex. 402 continued.)



Examples of Inversions.

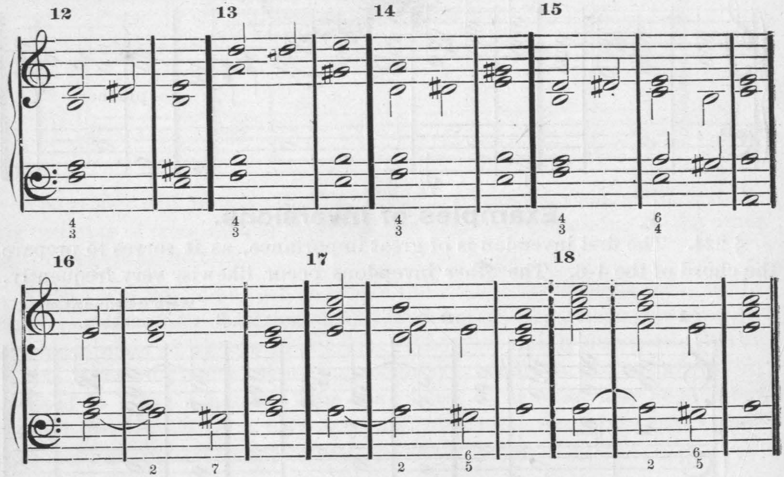
§ 224. The first inversion is of great importance, as it serves to prepare the chord of the 4-6. The other inversions occur likewise very frequently.

Ex. 403.



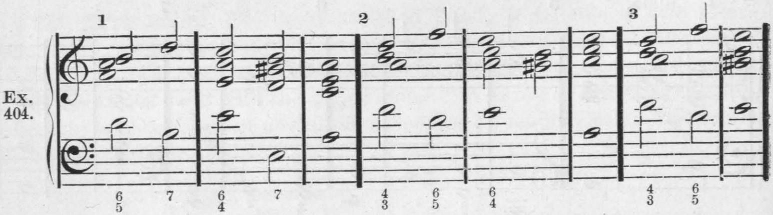
(Ex. 403 continued.)

With modification of one of its tones.



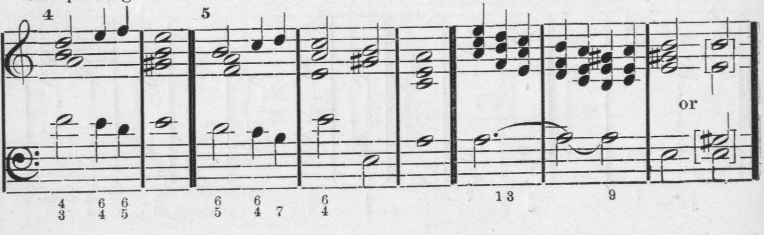
Combining different positions.

Ex. 404.



With passing tones.

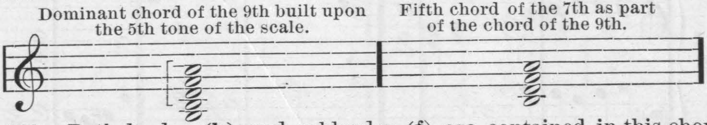
As incidental chord through organ point.



As part of the Dominant Chord of the Ninth.

§ 225. In this character it is built upon the leading tone of the scale, with resolution similar to that of the Dominant 7th, i. e. leader *ascending*, subleader *descending*.

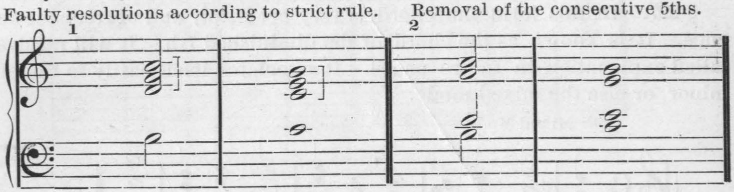
Ex. 405.


Dominant chord of the 9th built upon the 5th tone of the scale.

Fifth chord of the 7th as part of the chord of the 9th.

§ 226. Both leader (b) and subleader (f) are contained in this chord, indicating its natural resolution. In effecting this, care must be taken to avoid consecutive 5ths. Successions like the following are nevertheless occasionally met with in classical writings.

Ex. 406.

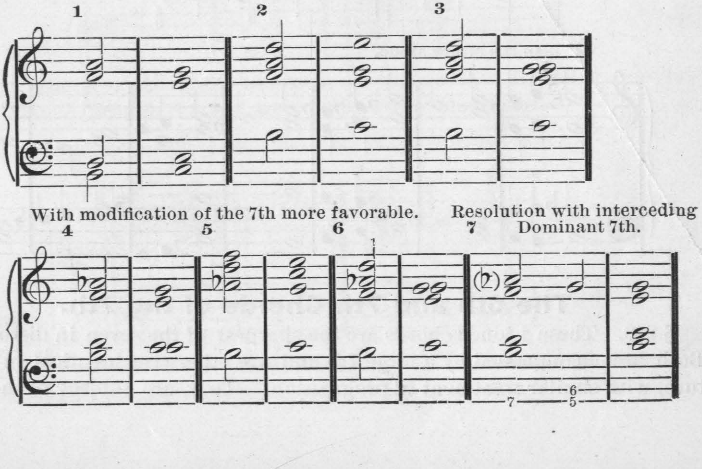

Faulty resolutions according to strict rule.

Removal of the consecutive 5ths.

If executed by voices a difference of effect would be perceptible between Nos. 1 and 2. Played on the piano the consecutive 5ths practically remain. This fact has given rise to their tolerance. The progression is nevertheless one of very little beauty and should be avoided.

Other Resolutions.

Ex. 407.

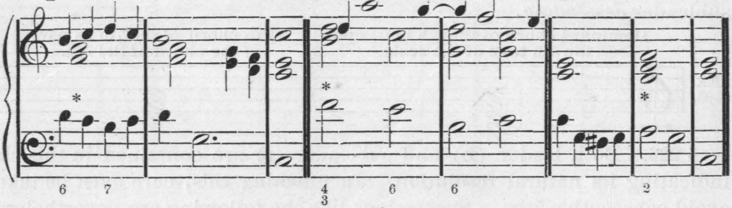


With modification of the 7th more favorable.

Resolution with interceding Dominant 7th.

The inversions of the chord in Ex. 407 do not frequently occur with their regular resolutions, but rather in examples like the following:

Ex. 408.

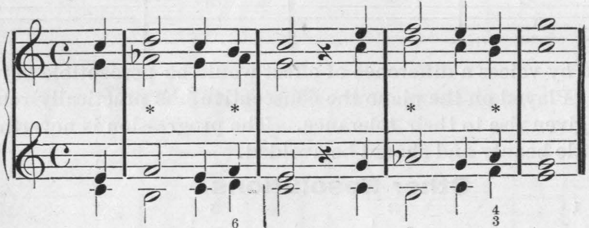


With modified 7th.

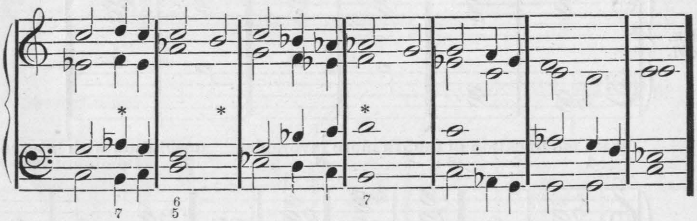
§ 227. In this form the chord is very beautiful, and of frequent occurence. It is known as the chord of the diminished 7th. It will receive detailed explanation in future pages. It associates itself easily to the purely minor, or else the mixed mode.

1 Mixed Mode.

Ex. 409.



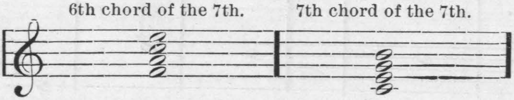
2 In the Minor Mode.



The 6th and 7th Chords of the 7th.

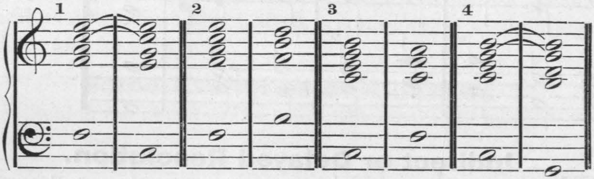
§ 228. These 4 toned chords are the sharpest of the seven in dissonance. Both are encompassed by a large 7th and are otherwise identical in structure, with similar treatment of progression. They are subject to the same modifications of their Third and Fifth, and amenable to direct and indirect resolution. In modern music the sharpest dissonances are permitted to enter unprepared, in other words, it is not strictly necessary that they should be preceded by consonances.

Ex. 410.



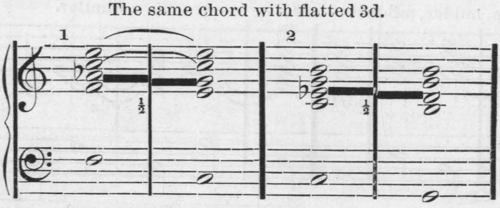
Direct Resolutions.

Ex. 411.



NOTE.—Four-toned chords have great latitude of alliance and resolution, as in the case of the dual resolution of the 6th and 7th chords of the 7th.

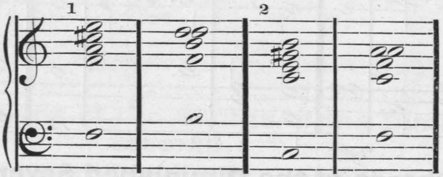
Ex. 412.



§ 229. The resolutions are the same as those at Ex. 411, with more intimate alliance through the half step, obtained by modification.

The same chords with sharped 5ths and similar resolution as at Ex. 411.

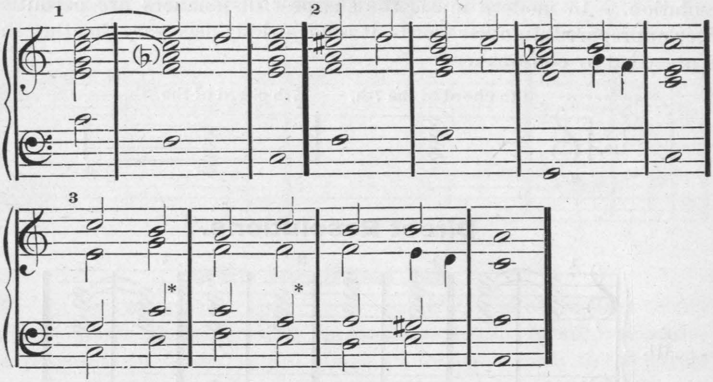
Ex. 413.



§ 230. As shown in the preceding examples, the 6th and 7th chords of the 7th associate themselves with chords related in the 5th.

Direct Progression based upon direct Resolution.

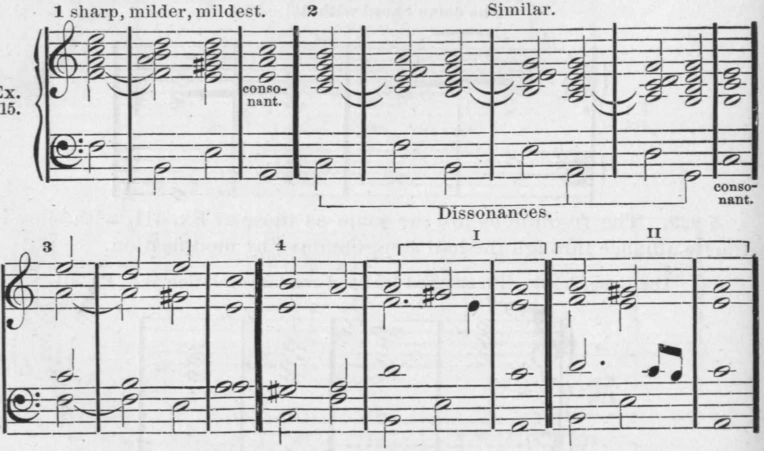
Ex. 414.



Indirect or Delayed Resolution.

§ 231. In such a case one or more milder discords are allowed to intervene between the sharper dissonance and the resolving consonance.

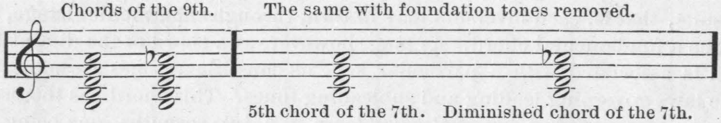
Ex. 415.



Chords of the Diminished Seventh.

§ 232. These chords, by reason of their equi-distant intervals, may form numerous alliances with other near or distant chords. To bring them into logical relation with distant chords, one or more of their constituent tones must undergo enharmonic change (see Part I, § 6). The diminished chord of the 7th has its origin in the chord of the 9th:

Ex. 416.

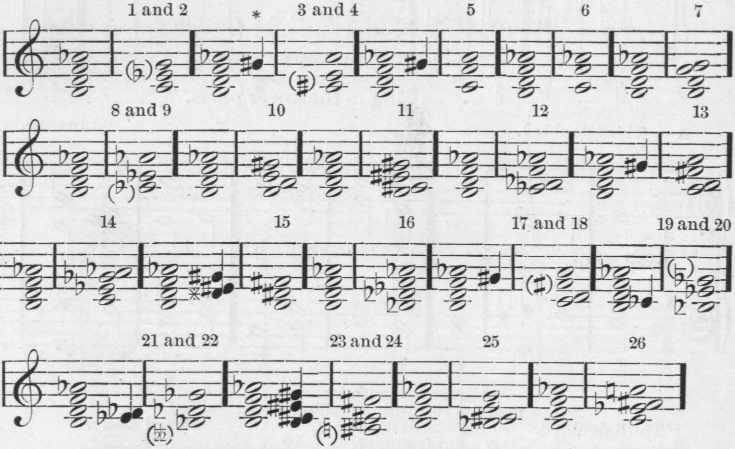

Chords of the 9th.
The same with foundation tones removed.
5th chord of the 7th.
Diminished chord of the 7th.

§ 233. The chord of the diminished 7th is a power in modern music, both from its dramatic character and fertility of modulation. Discreetly employed it is productive of beautiful effect. Its excessive use results in shallowness and meretriciousness of style. Abuse of its modulating capacity leads to chaos and formlessness.

Some Examples of Alliances

which the chord of the diminished 7th may form.

Ex. 417.



NOTE.—The enharmonic changes are necessary to furnish leading tones to the allied chords.

The Inversions of the Chords of the Diminished Seventh.

§ 234. The progressions from diminished chords of the 7th are principally chromatic, that is, by half tones. Their entrance is likewise chiefly

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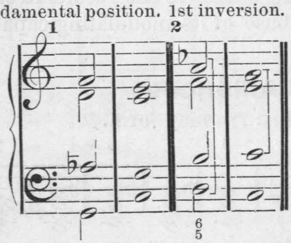
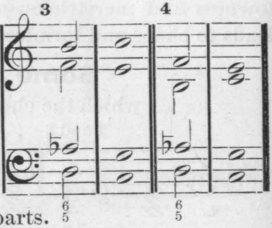
* The necessary enharmonic changes are indicated in quarter notes.

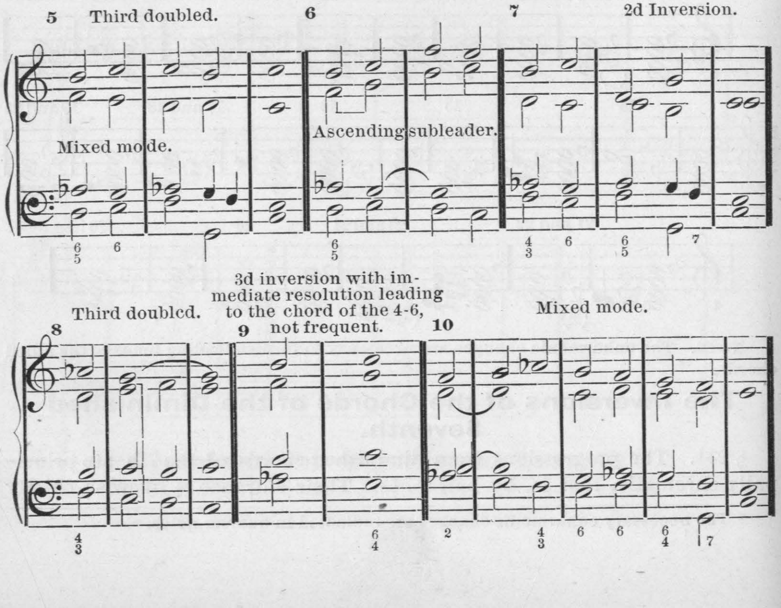
chromatic, but they may also enter from greater distances of interval. These consideration will prove the chord one easy of treatment. Its distances of interval being the same, inversions of the chord produce in all cases similar results, that is, each inversion may in turn, through enharmonic change, become a fundamental chord. As long, however, as a chord of the diminished 7th is associated with a particular key, its constituent tones are subject to the laws governing leading and subleading tones. This chord has the peculiarity of containing *two subleading tones*, i. e. two sevenths, one being the seventh of the chord of the Dominant, the other the seventh from its foundation tone.

Ex. 418.



The 5ths at No. 2 are too prominent, hence their succession should not be used. No. 3 and 4 are better, the consecutive 5ths being in the lower parts.

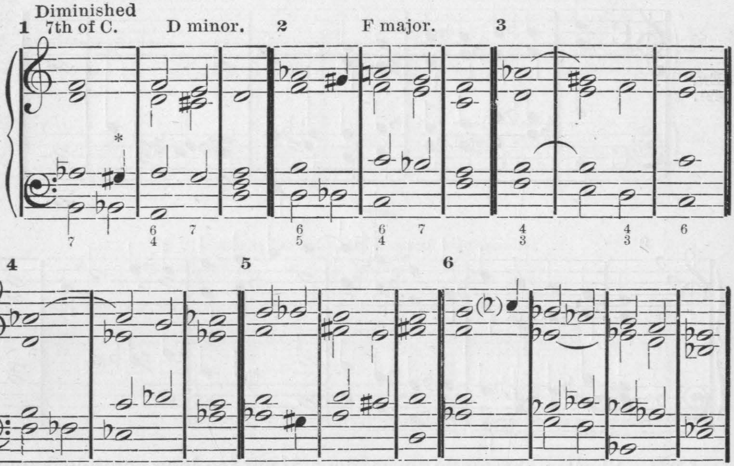




Examples of Modification and Resolution

resulting in modulation through chromatic progression.

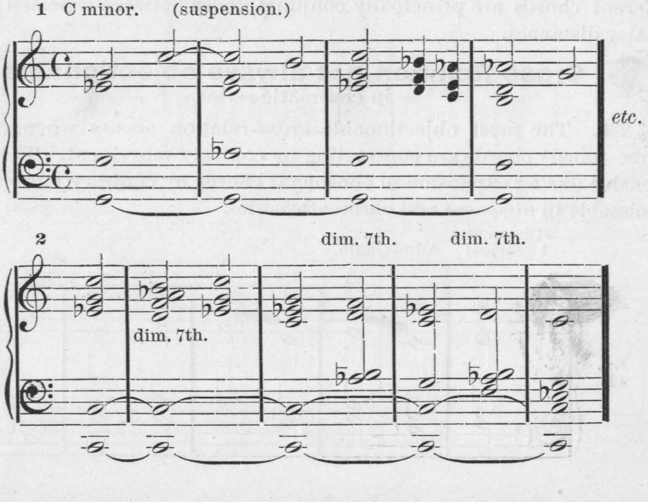
Ex. 419.



Chord of the Diminished 7th upon Organ point.

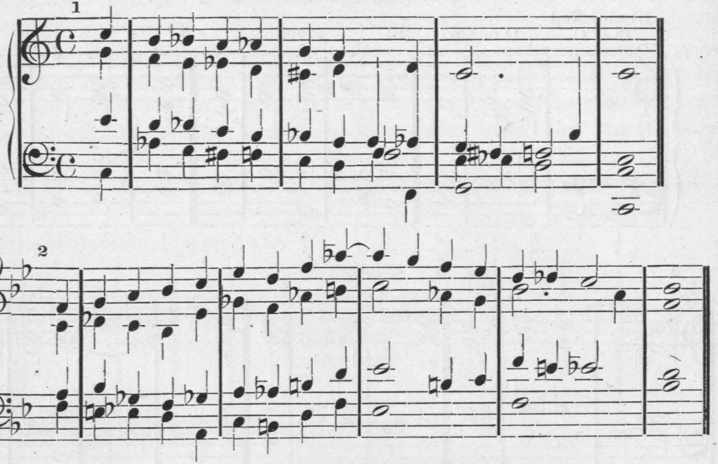
Ex. 420.

Piano.



Chromatic Series of Chords of the Diminished 7th.

Ex. 421.



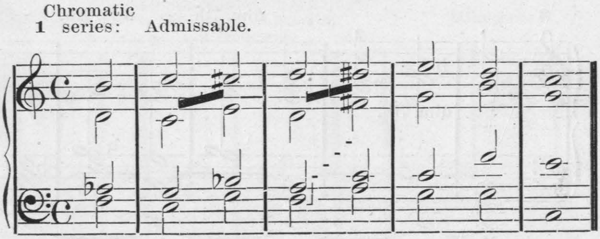
§ 235. Similar chromatic successions, if not too long continued, nor too frequently introduced, are of good effect and legitimate in music of dramatic character. The reader will observe that the progressions between different chords are principally conjunct, those between repeated chords at greater distances.

Cross-Relation not always objectionable

in chromatic series.

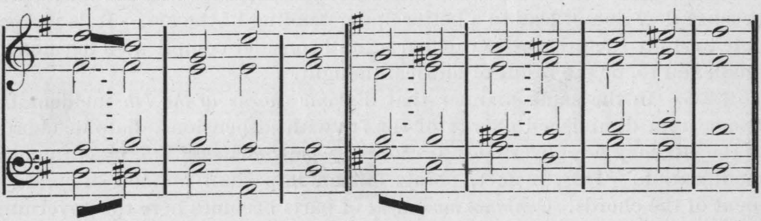
§ 236. The most objectionable cross-relation occurs when consonant (three-toned) chords are contracting by contrary movement. They are less offensive during expansion of consonant chords by contrary movement, and admissable in *dissonant* and chromatic series.

Ex. 422.

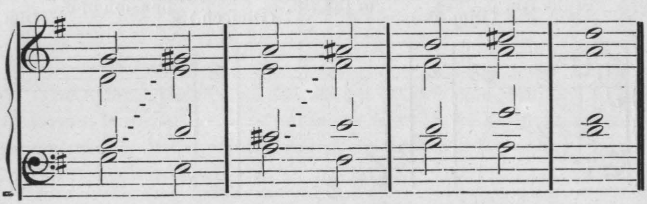


(Ex. 422 continued.)

2 During contraction of consonant chords offensive. **3** During expansion of consonant chords less offensive.

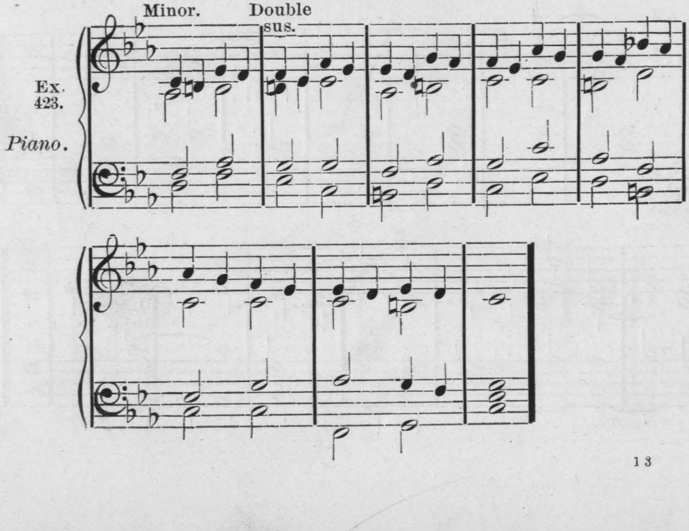


In dissonant chord-combination admissable.



Suspensions and Double Suspensions, prepared and unprepared.

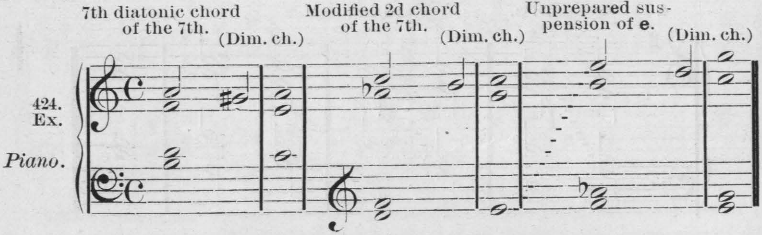
Ex. 423.



§ 237. Some of these chords of the diminished seventh with suspension resemble diatonic chords of the 7th. This might give rise to discussion as to the origin of these chords. Such discussions, however, are unfruitful, because they do not lead to a better understanding of the art. It is preferable to study the progression of parts, and consider complicated harmonies incidental to, or the result of musical thought.

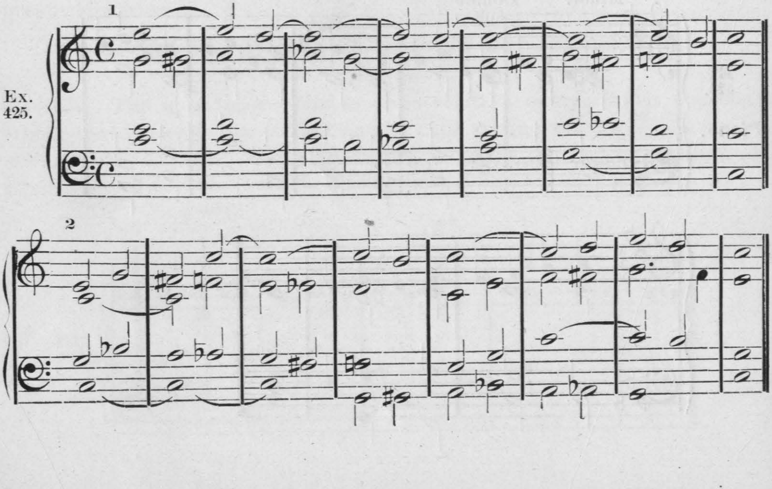
§ 238. In the same manner that *diatonic chords of the 7th* incidentally result from diminished chords of the 7th with suspensions, diatonic chords of the 7th may be converted into *chords of the diminished 7th*, by chromatic modification. This, in fact, points out an important method of employment of the chords. *Conjunct movement* of parts becomes here the governing principle.

424. Ex.


7th diatonic chord of the 7th.
(Dim. ch.)
Modified 2d chord of the 7th.
(Dim. ch.)
Unprepared suspension of **e**.
(Dim. ch.)
Piano.

Series of Chords through Modification and Chromatic Progression.

Ex. 425.

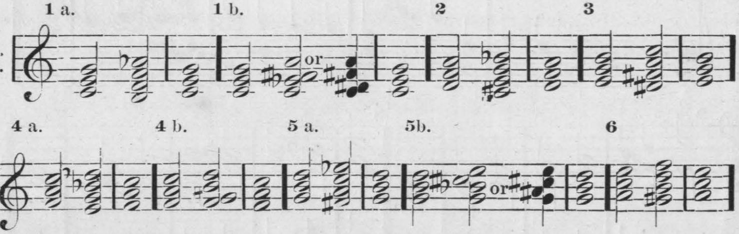


Chords of the Diminished 7th

associated with the three-toned chords of the scale, irrespective of inversion.

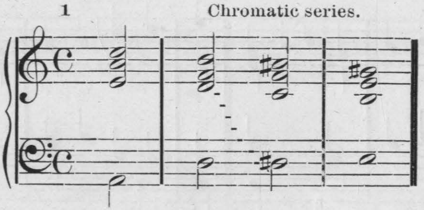
§ 239. The following chord combinations are to furnish to the student practical hints in the employment of the Chord of the Diminished 7th, without further research into the origin of each chord.

Ex. 426.

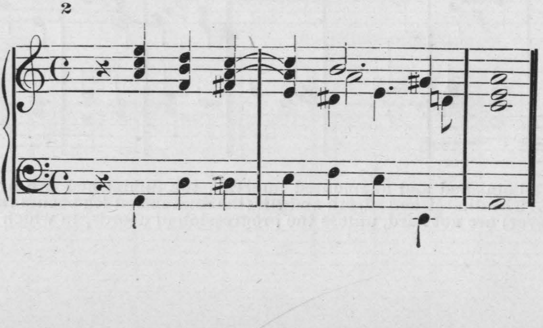


§ 240. The diminished Triad, 7th chord of the scale, omitted in the preceding example, is not a chord of sufficient individual strength to serve as a chord of resolution. It has itself need of resolution. But it may be *followed* by a chord of the diminished 7th.

Ex. 427.

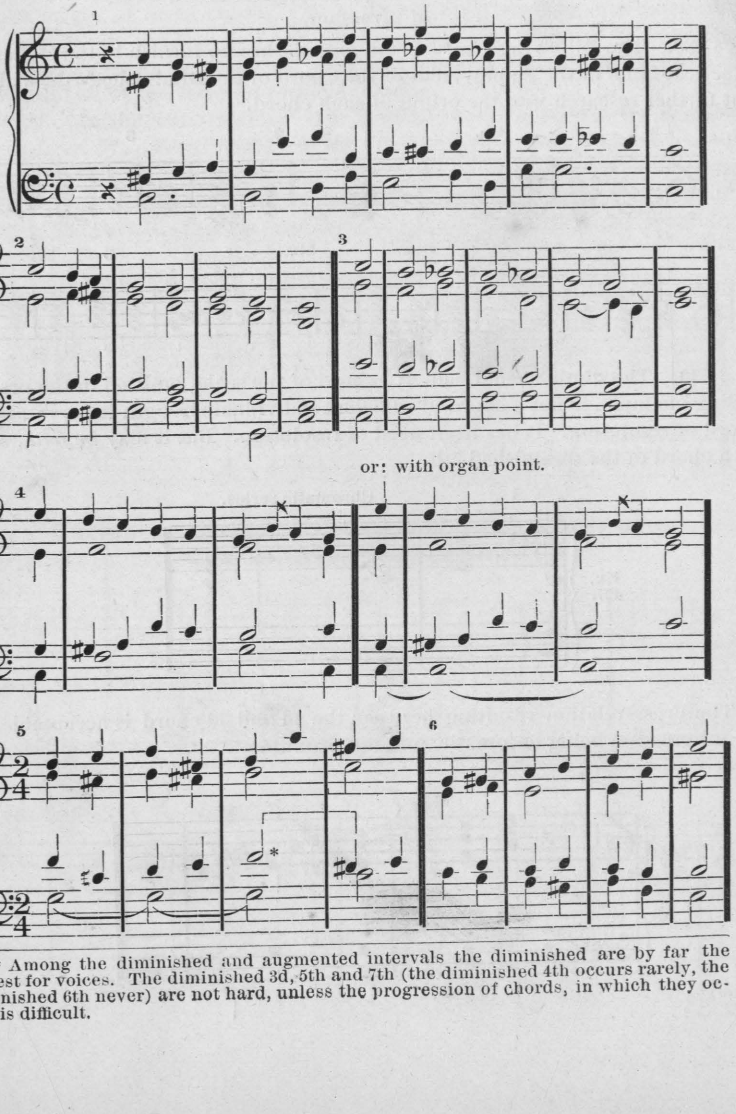


The cross-relation resulting between the 2d and 3d chord is acceptable. the progression being chromatic, and not prominent.



Chord Series, in 4 parts, of Triads and Diminished Chords of the 7th.

Ex. 428.



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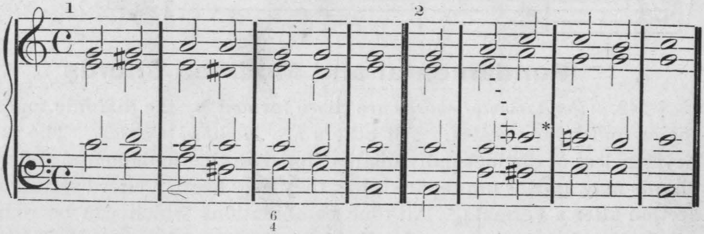
* Among the diminished and augmented intervals the diminished are by far the easiest for voices. The diminished 3d, 5th and 7th (the diminished 4th occurs rarely, the diminished 6th never) are not hard, unless the progression of chords, in which they occur, is difficult.

The Chord of the Diminished 7th

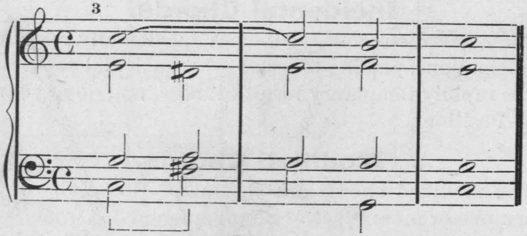
introducing the chord of the 4-6.

§ 241. This is a progression of frequent occurence. In some cases it is best adapted to instrumental writing. The intervals which result from chromatic chord combinations are often too difficult for the voices. Writers must be careful ever to preserve the fluency of single parts.

Ex. 429.
Voices.

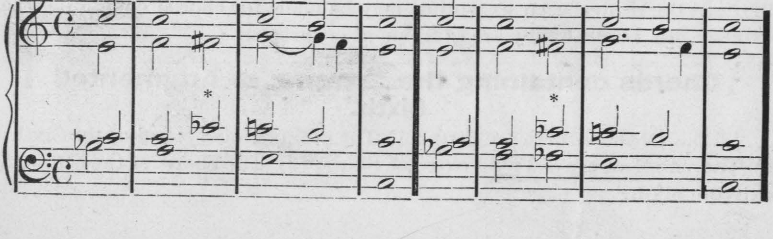


No. 2 is feasible vocally, but it must be rendered with precision, or else the cross-relation will be perceived. E♭, marked with *, should, strictly speaking, be **d♯**. E♭ is easier to the voice from **c** than **d♯**.

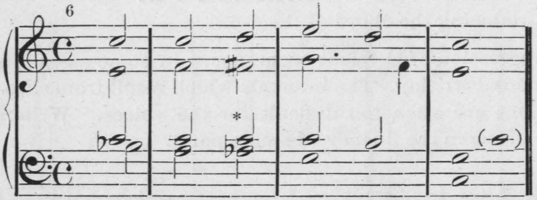


From **c** to **f♯** at No. 3 is a difficult interval. The schooled singer can take it.

or: with modification of diminished chord



(Ex. 429 continued.)



The modifications at Nos. 5 and 6 have led to different chords containing the extreme sixth. (See § 245.)

Fundamental and Modified Chords

§ 242. *Fundamental chords* are those formed by the diatonic tones of the major aud minor scales. All others are *Modified Chords.* The latter are nevertheless of distinct individuality, for both the fundamental and modified chords may appear unprepared, i. e. they may begin a chord series, or a new section after a Fermata. All tone combinations which can be reduced to original positions of accumulated thirds (major, minor or diminished) are either fundamental or modified chords. There remains another class of less clearly defined chord formations, called

Incidental Chords.

§ 243. These are dissonant Harmonies incidentally resulting from suspensions, anticipations, passing tones or other melodial progressions. They are merely the rapidly temporary result of these, and do not admit of reduction to Third-Position.

Modified Chords.

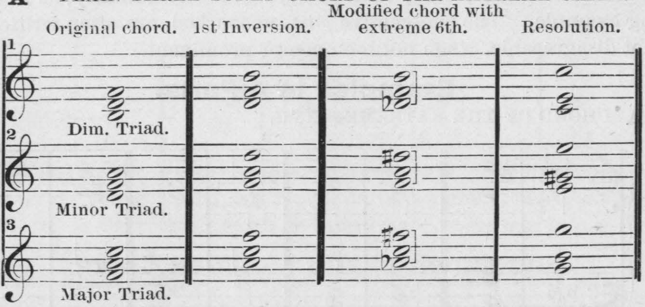
§ 244. The modified chords are chromatic alterations of fundamental chords. When one or more tones of a fundamental 3, 4 or more-toned chord are raised or lowered by half a step (semi-tone), a modified chord is the result. This operation being invariably the same, we deem it unnecessary to enter upon an extensive explanation of modified chords. Their correct formation is dependent upon correct progression, with which we have familiarized the reader. An exception may be made for chords containing the extreme 6th, because they are of frequent occurence.

Chords containing the Extreme or Augmented Sixth.

§ 245. Of these there are three: 1) The plain 3 toned chord of the Sixth; 2) The chord of the 4-6 with extreme Sixth; 3) The chord of the 5-6 with extreme Sixth.

A PLAIN THREE-TONED CHORD OF THE EXTREME SIXTH.

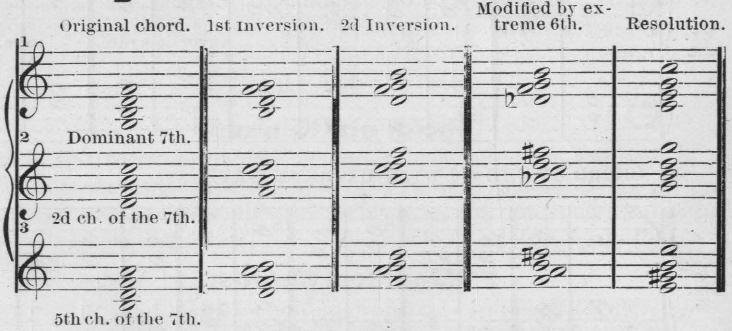
Ex. 430.



We have given here three examples; similar chords may be formed of any major, minor or diminished Triad. Inverted positions of the chord of the extreme 6th are rare.

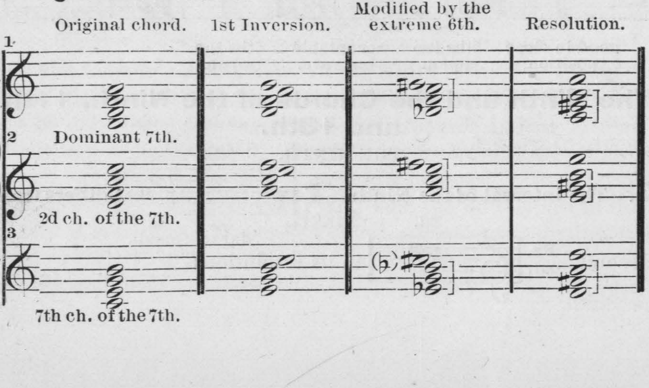
B CHORD OF 3-4 WITH EXTREME SIXTH.

Ex. 431.



C THE CHORD OF THE 5-6 WITH EXTREME SIXTH.

Ex. 432.

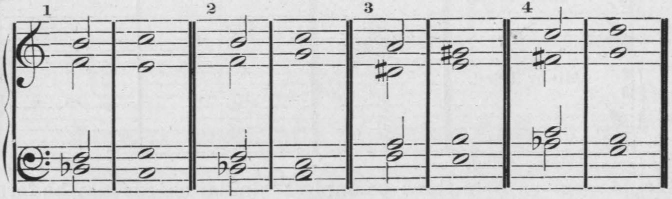


Chords of the same kind, in any key, will result similarly, as in the preceding example. The consecutive 5ths, as marked, are often written; they are not disagreeable, when not too open or prominent.

Examples in 4 Parts.

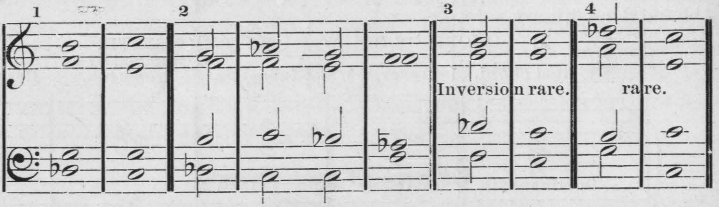
A CHORD OF THE EXTREME SIXTH.

Ex. 433.



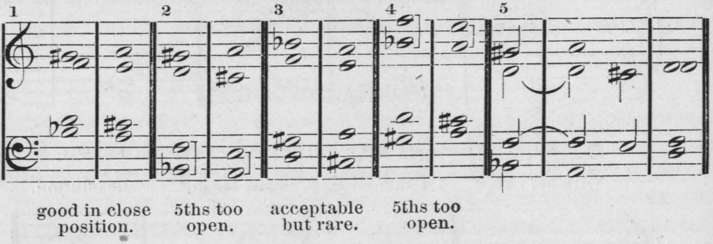
B CHORD OF THE 3-4 WITH EXTREME SIXTH.

Ex. 434.



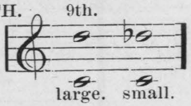
C CHORD OF THE 5-6 WITH EXTREME SIXTH.

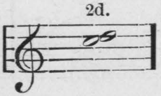
Ex. 435.



The Ninth and the Chords of the Ninth, 11th and 13th.

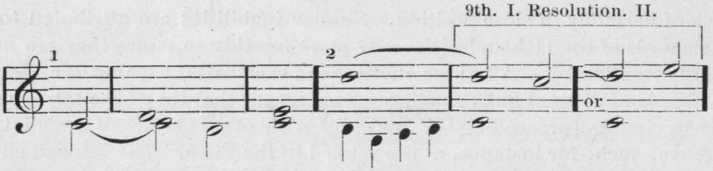
THE NINTH.

§ 246. The interval of the Ninth Ex. 436. 

differs from that of the Second Ex. 437. 

in its resolution:

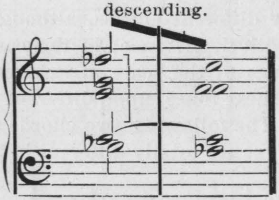
Ex. 438.



As seen in Ex. 438, No. 1, the *lower interval* of the Second (**c**) is the dissonant tone and moves to **b**. At No. 2, on the contrary, the *upper* interval of the 9th (**d**) is the moving tone, and resolves, descending, into **c**, or, ascending, into **e**.

The small Ninth invariably descends, in its resolution:

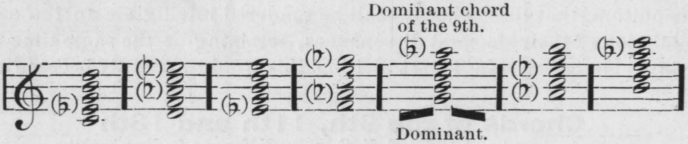
Ex. 439.



Chord of the Ninth.

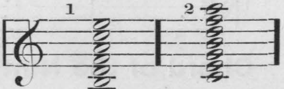
§ 247. Chords of the 9th may be formed upon all the tones of the major and minor scale, by a superstructure of 4 Thirds. Chords of the 9th are 5 toned, and can consequently only be employed in 4 part writing, when one of their 5 tones is omitted.

Ex. 440.



§ 248. The most important chord of the Ninth is that built upon the Dominant, the 5th tone of the scale. It occurs more frequently than the others, and may be called the *Dominant chord of the Ninth*. It may appear in its original position or its inversion. The 4th inversion occurs but rarely, the others much more frequently than is generally believed. The chord of the 9th has not received sufficient study and analysis on the part of theorists. Many regard it merely as a suspension chord, some deny it distinct individuality and declare it to be a chord of the 7th upon an organ point; this partly on account of its excentricity of inversion, and partly because of its lack of harmony in close position. Similar inabilities are attributed to the the chords of the 11th and 13th, only more forcibly so, since they are much more complicated. All these chords are nevertheless capable of appearing as chords of distinct individuality. This means that they have the capacity of associating (proceeding to) logically with other chords of essential difference, such, for instance, as are related in the Fifth. The 3 toned chords of the Tonic and Dominant for example, related in the 5th, have a tone in common, yet they possess each distinct individuality. Those of the Tonic and relative minor only differ in one tone, having two in common, yet they are likewise of distinctly different individuality. But the fact that they have tones in common does not make them chord combinations upon an organ point. The chords of the 9th, 11th and 13th certainly have the capacity of progressing to distinctly different chords, although they must necessarily have tones in common with them, since, in the case of the complete chord of the 13th, *all* the 7-tones of the scale are represented. In that case the different *arrangement* of these tones, upon different foundations, marks their separate individuality. The following two chords of the 13th, for instance, contain the same tones, yet are totally different in their character:

Ex. 441.



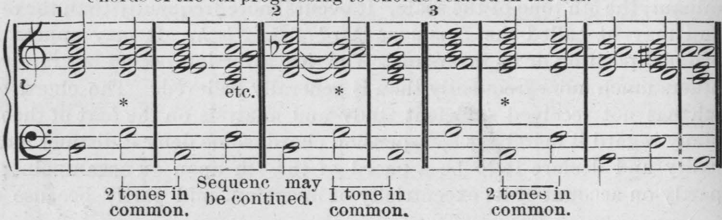
It cannot, however, be the object of musical art to indulge in the production of chords, possessed of so many conflicting elements. The question then arises whether they can in *some* way be made to contribute to the treasures of Harmony. This question may be answered in the affirmative with the one condition, that these chords shall be rendered intelligible to the ear by the omission of their sharpest dissonances, retaining at the same time their individual character. In 4 part writing this would naturally become a necessity.

Chords of the 9th, 11th and 13th

progressing to chords of distinctly different individuality.

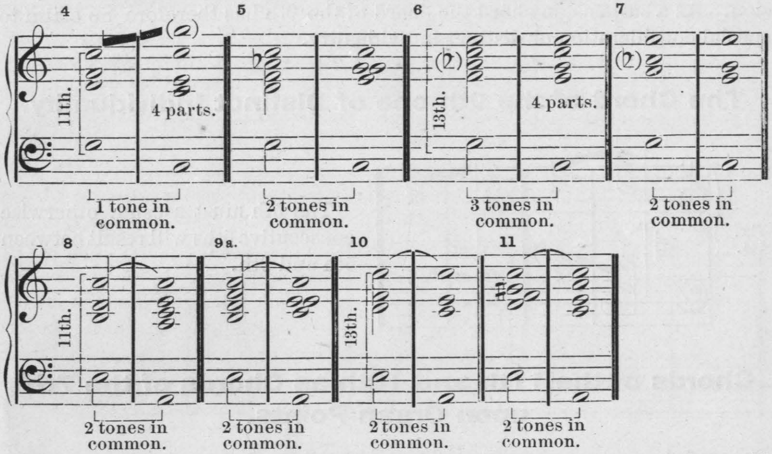
Chords of the 9th progressing to chords related in the 5th.

Ex. 442.

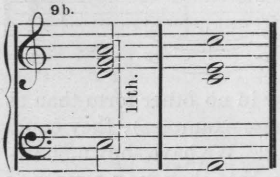


(Ex. 442 continued.)

Chords of the 11th and 13th progressing to chords related in the 5th.



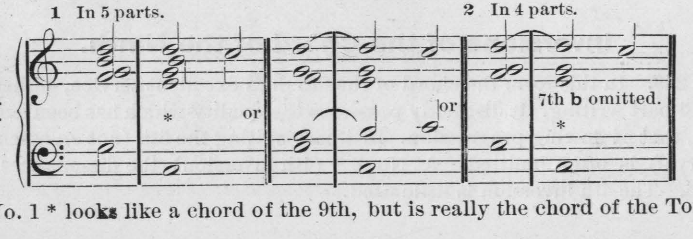
None of the preceding examples resemble chords upon organ points. It was not strictly necessary that the upper part at Nos. 4, 5, 6, 7, 8, 9, 10 and 11 should appear in uniform movement, which might be *interpreted* as an organ point. No. 9, for instance, could have undergone the following alteration:



At No. 4 **c** ascending to **g** is quite possible. The remaining chord combinations admit of similar alterations in the progression of the Treble part.

Chord of the Ninth as a Suspension Chord.

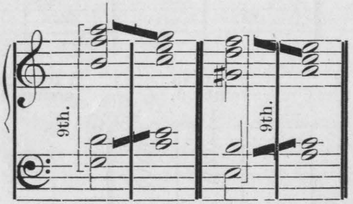
Ex. 443.



No. 1 * looks like a chord of the 9th, but is really the chord of the Tonic with double suspension. The chord at No. 2 * also *contains the interval of the 9th,* but is again nothing but the chord of the Tonic with single suspension. As a suspension chord the chord of the 9th has therefore no claim to special consideration or distinct individuality.

The Chord of the 9th one of Distinct Individuality.

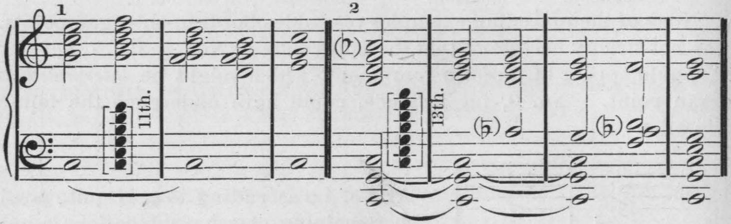
Ex. 444.



The 5th must ascend, otherwise consecutive 5ths will result between 5th and 9th.

Chords of the 11th and 13th as Chords of the 7th upon Organ Points.

Ex. 445.

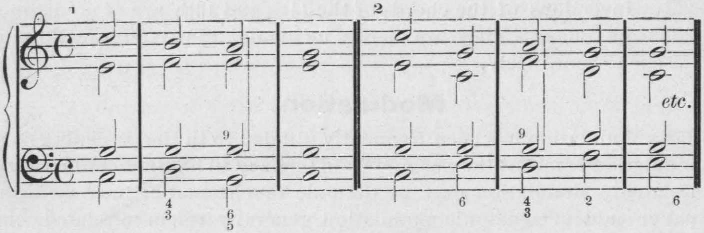


If the chords of the 11th and 13th could appear in no other form than as chords of the 7th upon an organ point (as in these examples), they could not be admitted as chords of separate individuality. We have shown, however, at Ex. 442, Nos. 4, 5, 6, 7, 8, 9a., 9b., 10, 11, that they may appear as distinct chords.

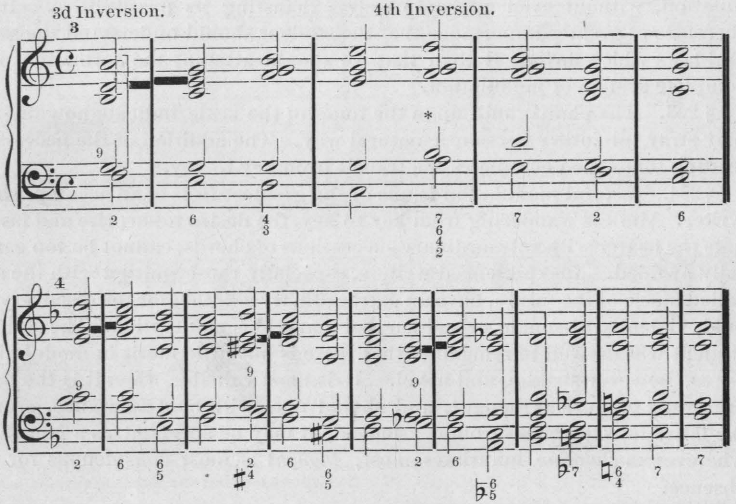
Inversions of the Chord of the Ninth.

§ 249. In this form the chord of the 9th does excellent service, either in 5 or 4 part writing. It distinctly possesses the quality which has been denied to it, that of flowing progression. In 4 part writing the 5th (not an essential interval) is often omitted. At No. 3 * (4th inversion) the dissonances are close. The 4th inversion is little used.

Ex. 446.

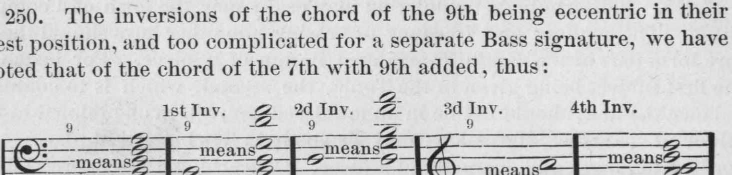


In 5 parts with chords of the 9th complete.



§ 250. The inversions of the chord of the 9th being eccentric in their closest position, and too complicated for a separate Bass signature, we have adopted that of the chord of the 7th with 9th added, thus:

Ex. 447.



NOTE.—The inversions at Ex. 447 are given in dispersed positions, to make them intelligible to the ear. Other forms of dispersions could have been selected.

§ 251. Inversions of the chords of the 11th and 13th are of no distinctly individual character. They are merely incidental to part progression, and even as such occur rarely.

Modulation.

§ 252. Modulation has been frequently alluded to in the preceding pages. By modulation is meant the passage from one key to another, either related or unrelated. Modulation may be diatonic or chromatic, near or distant, gradual or sudden. Diatonic modulation generally refers to related, chromatic to unrelated keys. Volumes could be written upon the subject of modulation, without even approximately exhausting its possibilities. It is therefore of greater importance that the student should understand the general laws which fiovern it than that we should attempt the formation of a complete system of modulation.

§ 253. The chords built upon the tones of the scale indicate how far we may stray into other keys in a natural way. The addition of the necessary leading tones then completes the transit from key to key.

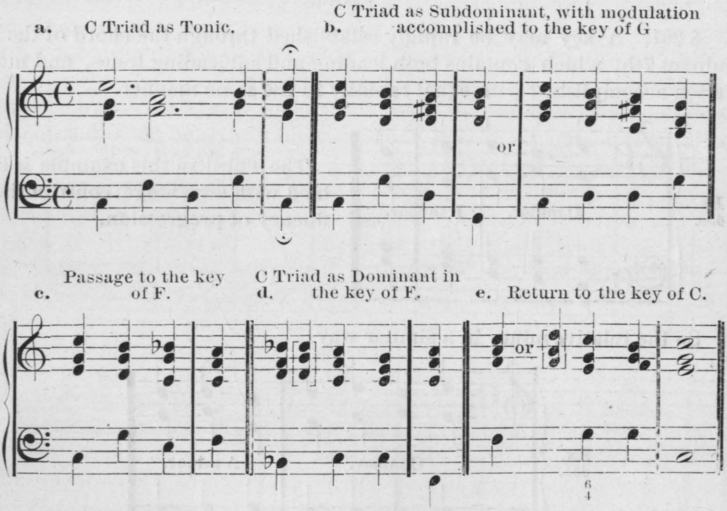
§ 254. Tasteful modulation is one of the greatest tests of an accomplished writer. Aimless wandering from key to key, the desire to surprise and fascinate the hearer with extraordinary successions of chords, cannot be too carefully avoided. Inexperienced writers, especially those smitten with the so-called music of the future, have an extraordinary *penchant* for the discovery of bold, violently dissonant or sudden and marvelous modulation. The serious student will do well to remember that there is but little merit in modulation *per se*, however striking and novel. It is most valuable when it is the natural *result* of musical thought, and should not, with bold assurance, crowd the latter into the back-ground. Indeed, it may be accepted as a fact that, wherever *modulation* luxuriates most, *thought* is most conspicuous for its absence.

§ 255. Indiscriminate modulation may easily mar the form of a composition. The manner and freqency of passing into other keys should therefore form part of the carefully arranged design of a piece. For instance, the first subject being given in the Tonic, the second, which is to counterbalance the first, should not be in an unrelated key, but in one related in the 5th or 3d. Farther digressions may be made in less important places, according to length and character of a piece. Concerning the closer detail of modulating chord progression, logic, symmetry and balance should be the guiding principle.

§ 256. All related chords are naturally modulating chords, and the Dominant is chief among them; they may succeed each other without intervening chords and bring about modulation almost imperceptibly. Unrelated keys require the intercession of other consonant or dissonant chord, to accomplish the passage from one to the other.

§ 257. As any major Triad may, from its surroundings, be or become a chord of the Tonic, Dominant, or Subdominant, it follows that the passage to two different keys, and from these to others, is easy and natural.

Ex. 448.


a. C Triad as Tonic. b. C Triad as Subdominant, with modulation accomplished to the key of G

c. Passage to the key of F. d. C Triad as Dominant in the key of F. e. Return to the key of C.

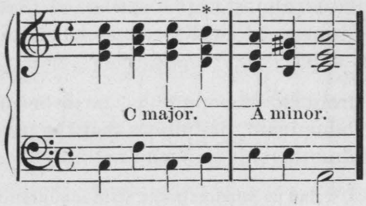
NOTE.—To attain skill in modulation and the progression of parts, the examples above should be written in all the possible positions of the upper parts, with such choice of Bass, as may suit the altered distances.

§ 258. The passage from one key to another implies the presence of the leading and subleading tones of the first key, as **f** and **b** at Ex. 448 a., and the leading and subleading tones of the second key, as **c** and **f♯** at b. in same example.

§ 259. It follows that without *both leading tones* no key can be fully established, nor modulation be fully accomplished.

§ 260. In modulating from a major into its nearest related minor key, the leading tone may be so introduced as to serve both to establish the major key and foreshadow the minor. It may also be said that a relative minor key contributes, to some degree, to establish the major, since both have their origin in the same fundamental scale.

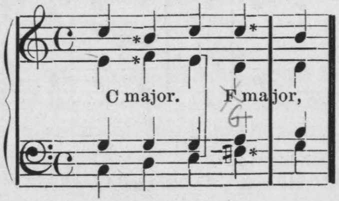
Ex. 449.



Taken in connection with the preceding chord, **b** (*) is still the leading tone; considered as connected with the succeeding chord, it ceases to be the leading tone, and becomes the 2d tone of the scale of A minor.

§ 261. A key may be rapidly established through the chord of the Dominant 7th, which contains both leading and subleading tones, and modulation accomplished with equal rapidity in the same manner.

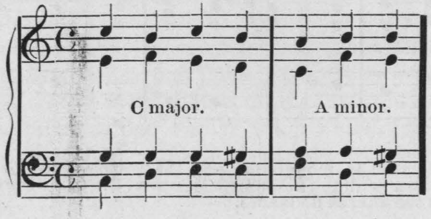
Ex. 450.



The Third in this example is doubled with advantage, contributing to fluency of progression.

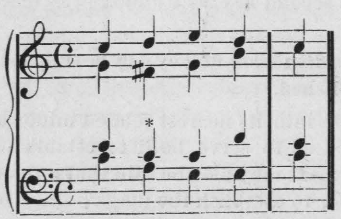
So the relative minor in a similar way:

Ex. 451.



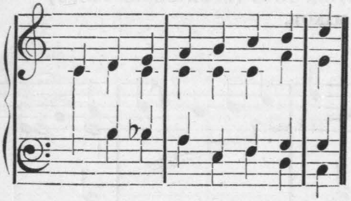
§ 262. In the following example the key of G is barely touched by a chord which admits of instant return to the original key.

Ex. 452.



The chord * at Ex. 452 may be regarded as a modification of the chord of the Subdominant **f a c** in the first inversion. LOUIS KŒHLER, the distinguished composer and critic, denominates chords of this character "Grenzaccorde", meaning chords situated on the limit, or dividing line, of two different keys, in this case C and G.

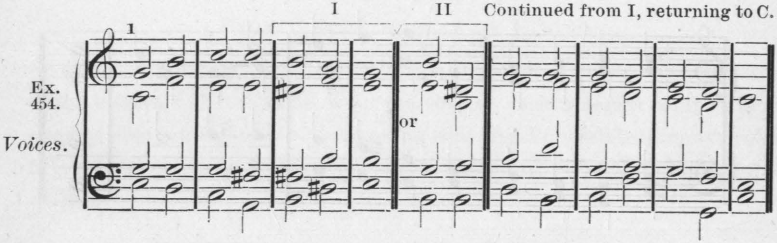
Ex. 453.

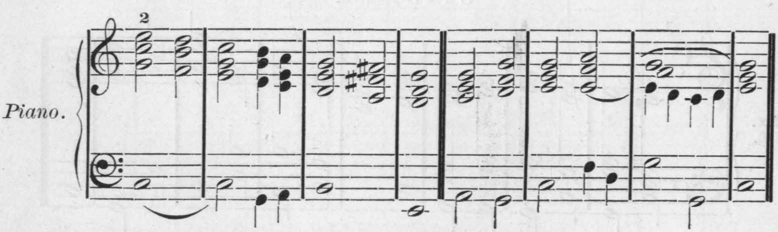


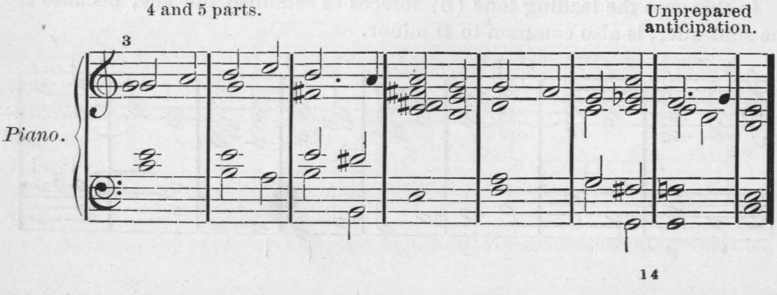
In this example the key of F is lightly touched, followed by immediate return to C.

C TO E MINOR AND RETURN.

Ex. 454.



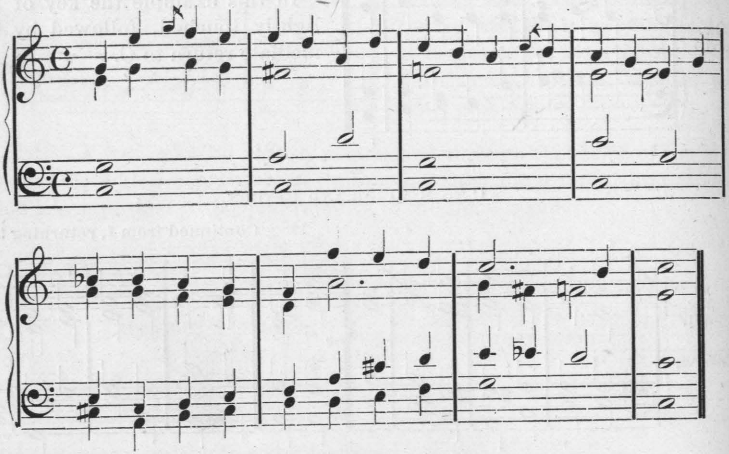




KEY OF C WITH PARTIAL MODULATION TO G (UPON ORGAN POINT) AND D MINOR.

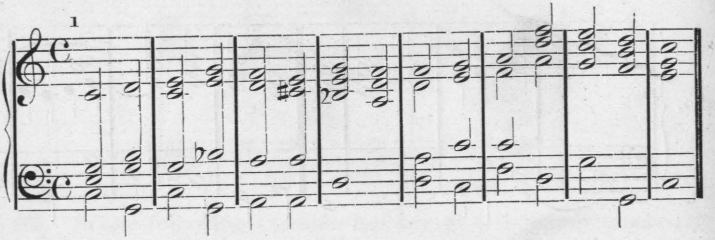
With Passing Tones:

Ex. 455.

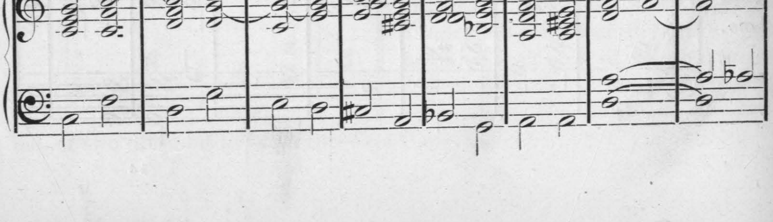


C TO D MINOR.

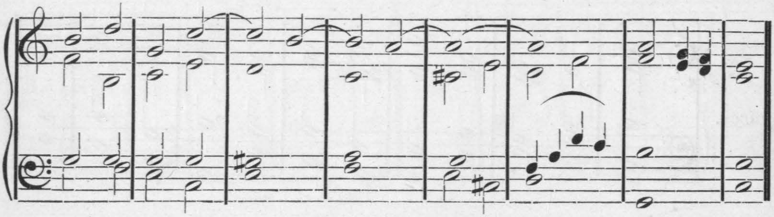
Ex. 456.



In this case the leading tone (**b**) suffices to establish the key, because **f**, the subleader, is also common to D minor.



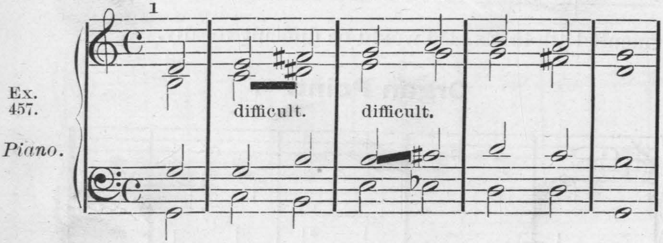
(Ex. 456, No. 2, continued.)



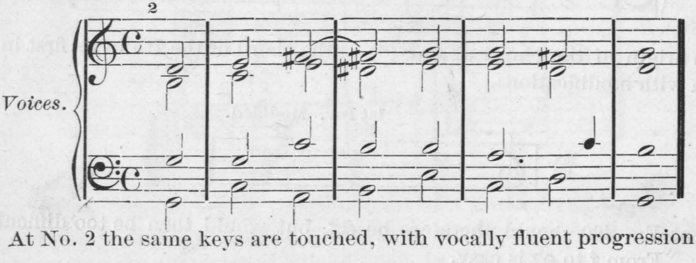
FROM C TO G BY WAY OF E MINOR.

§ 263. Examples like the following are essentially instrumental. Some of the intervals are too difficult for the voices. Instrumental composers frequently commit the error of demanding well nigh impossible things of voices. It is incumbent upon writers to confine license of interval to instrumental writing.

Ex. 457.



The intervals marked, would be difficult for voices.

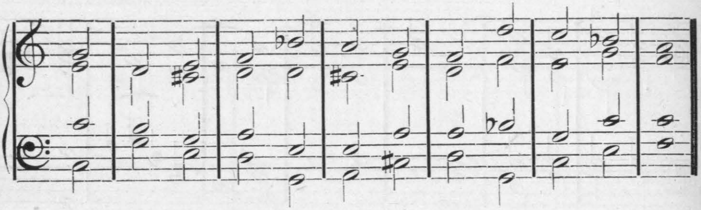


At No. 2 the same keys are touched, with vocally fluent progression.

C TO F THROUGH D MINOR.

Ex. 458.

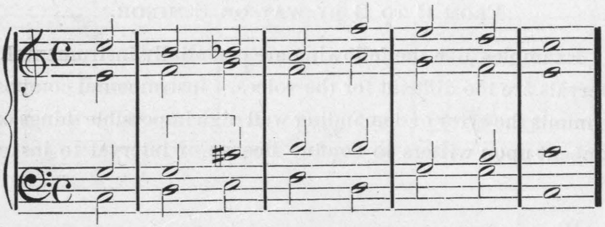
Voices.



Key of C lightly touching D minor.

Ex. 459.

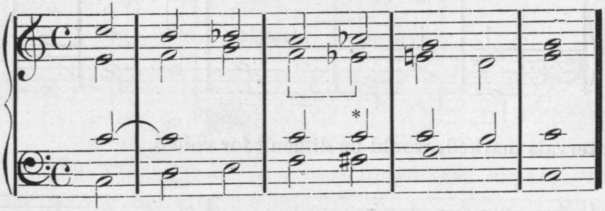
Piano.



The augmented 4th in Ex. 459 would be difficult vocally.

Organ Point.

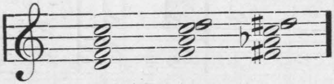
Ex. 460.



The origin of the chord at star (*) is the chord of the 7th in its first inversion with modifications.

1st Inv. Modified.

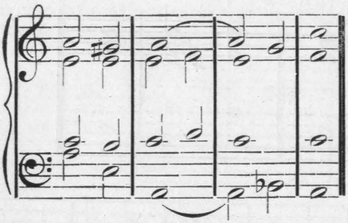
Ex. 461.



E♮ at Ex. 460 should therefore be **d♯**, but would then be too difficult vocally. From **f** to **e♮** is easy.

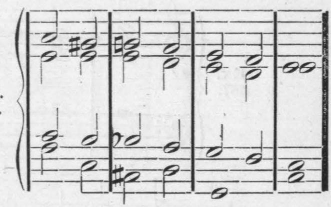
A minor to F.

Ex. 462.



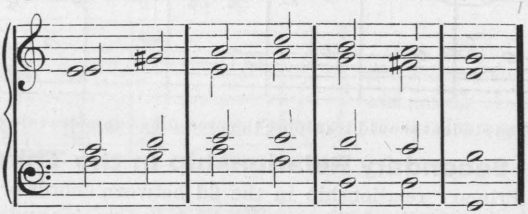
A minor, D minor and C.

Ex. 463.



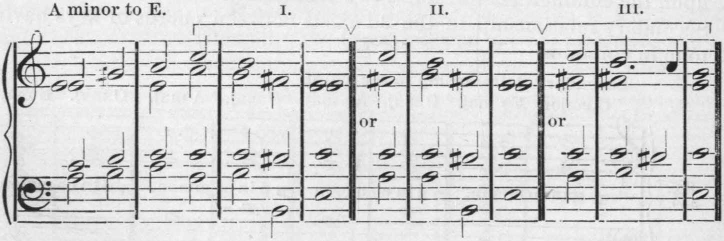
A minor to G.

Ex. 464.



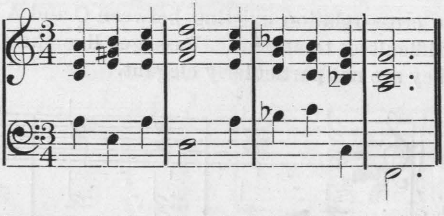
A minor to E.

Ex. 465.



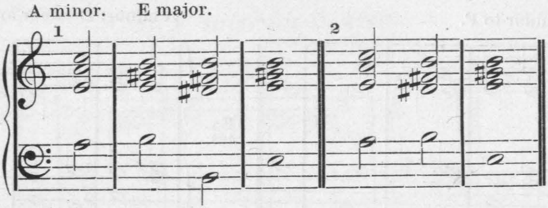
A minor to F.

Ex. 466.

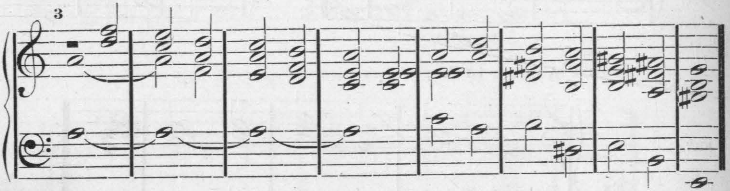


§ 264. The chord of the Dominant of A minor (**e g♯ b**) makes the modulation to E major obvious, the chord of the Tonic of A minor (**a c e**) then assuming the character of Subdominant to E major.

Ex. 467.



Ex. 468.

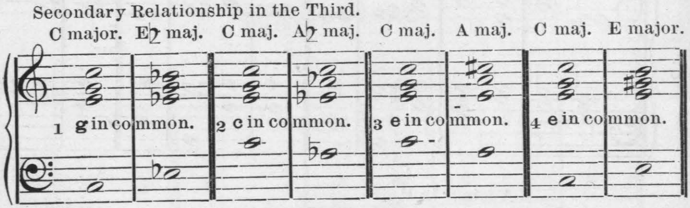


NOTE.—The student should transpose the preceding examples into other keys.

Secondary Relationship in the Third.

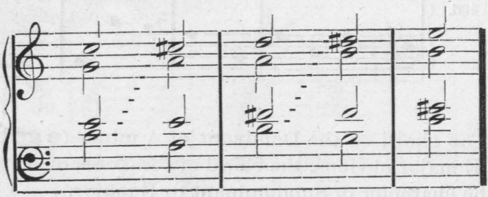
§ 265. Primary relationship in the 3d between chords or keys is based upon the common possession of two tones, as in C major and A or E minor. Secondary relationship in the 3d exists between chords or keys having one tone in common.

Ex. 469.



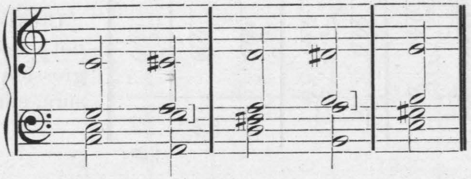
§ 266. The cross-relation existing between C and A major makes these chords more difficult of treatment. Passages like the following are often met with. They are not particularly elegant.

Ex. 470.



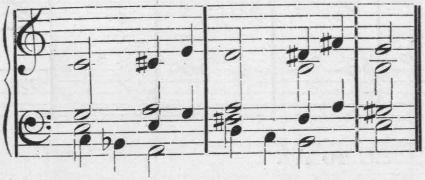
§ 267. Better is the following, because the dissonance of the chord of the 7th covers the effect of the cross-relation.

Ex. 471.



§ 268. In the following example the cross-relation is sufficiently avoided through interposition of figured Bass.

Ex. 472.

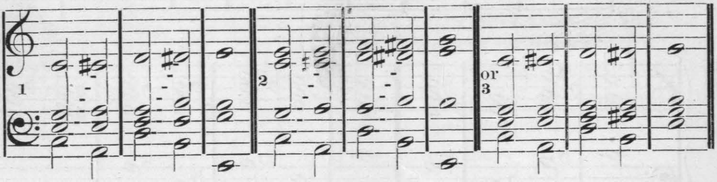


The figured Bass at Ex. 472 suggested the greater animation of Soprano and Tenor, for the sake of symmetry.

§ 269. As there is no way of avoiding the cross-relation in plain progressions of keys, such as C and A major, whose succession is legitimized through their actual relationship, the cross-relation *must be admitted*, tempered, as far as may be, by dissonance, or covering of the cross-relation.

Cross-relation at the extremities rather harsh. Cross-relation in the middle part (covered) better. Tempered by the dissonance of the chords of Dom. 7th.

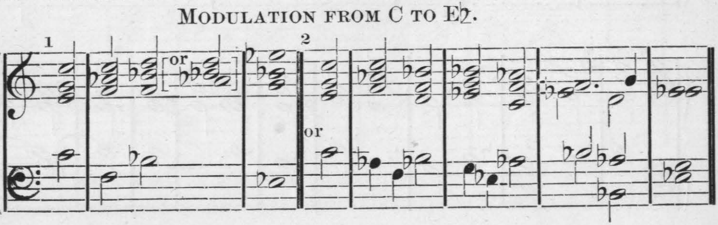
Ex. 473.



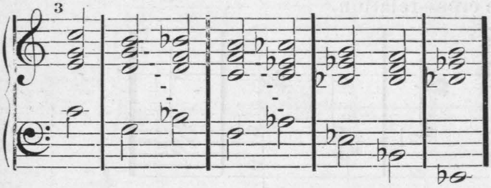
§ 270. It is nevertheless better to avoid cross-relation whenever possible.

Modulation from C to E♭.

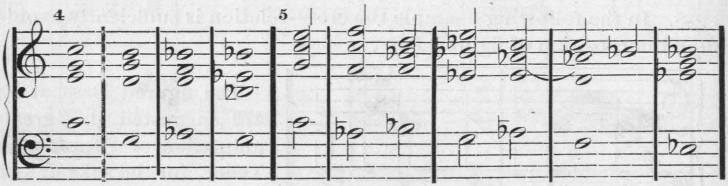
Ex. 474.



(Ex. 474 continued.)

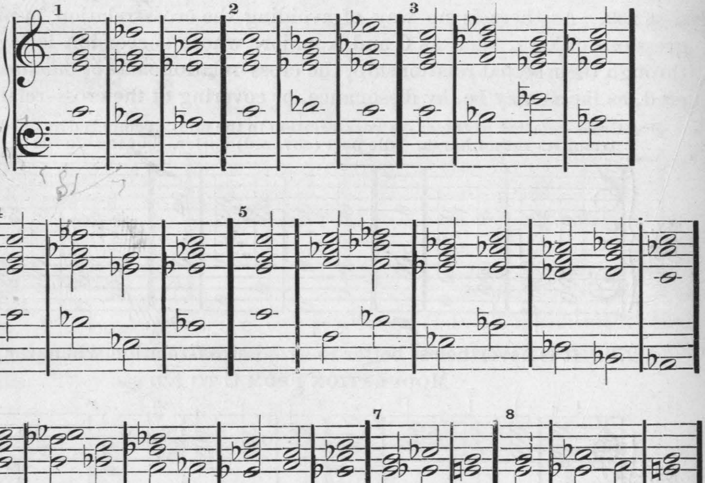


Cross-relation at No. 3 not perceptible, the progression being, in a measure, chromatic.



C TO A♭.

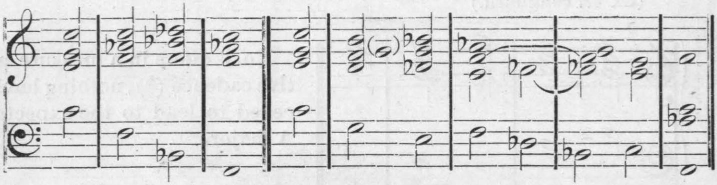
Ex. 475.



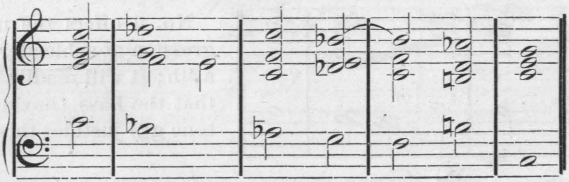
C TO F MINOR.

§ 271. The chord of C naturally suggests itself as the Dominant of the key of F, either major or minor.

Ex. 476.



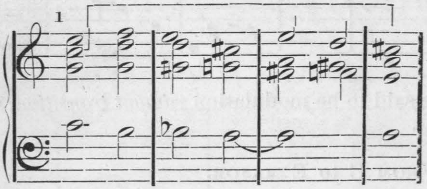
C TO F MINOR AND RETURN.



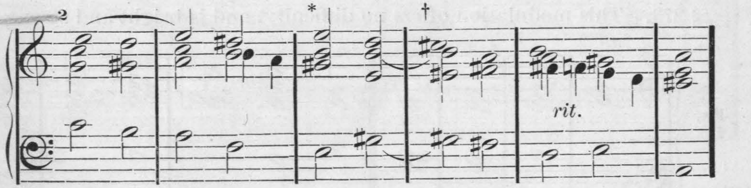
FROM C TO A MAJOR.

§ 272. In this modulation the transition should, as a general thing, not be too sudden, the **c** and **c♯** clashing through the memory of the first, unless it be managed as shown in the following example:

Ex. 477.

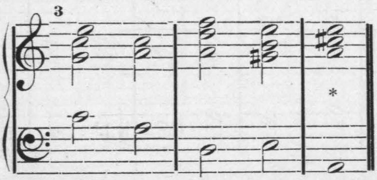


In this example the dissonant chords serve to efface the **c** from the memory by the time **c♯** appears, as forming part of the settled new key.

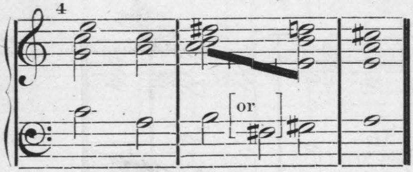


At No. 2 the device is adopted (with object of forgetting the original key) to go beyond the key aimed at. For this purpose E major is touched (*), and then the chord of the Dominant 7th upon **c♯** (†), momentarily introducing F♯ minor, when finally A major is reached without having uncomfortably startled the ear.

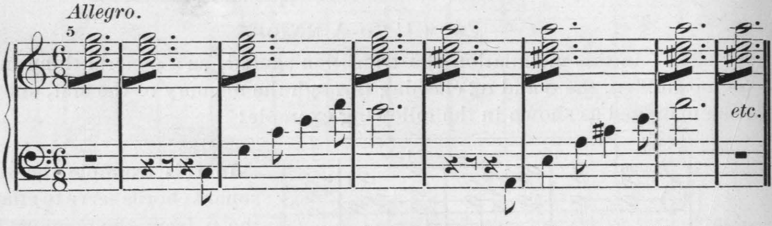
(Ex. 477 continued.)



No. 3 offers in a measure a deceptive cadence (*), nothing having preceded to lead to the expectation of A major.



No. 4 offers the unusual progression of subleader descending a 4th; it will readily be perceived that the Bass (having rosolution tone **g♯**) justifies this.

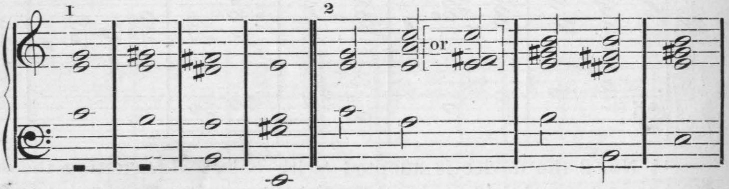


In this case there may be said to be modulation *without transition*, often a means of beautiful effect.

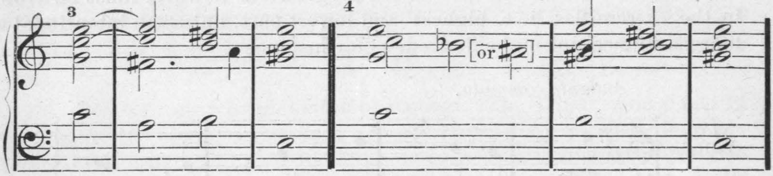
FROM C to E MAJOR.

§ 273. This modulation offers no difficulty, and is bright and strong.

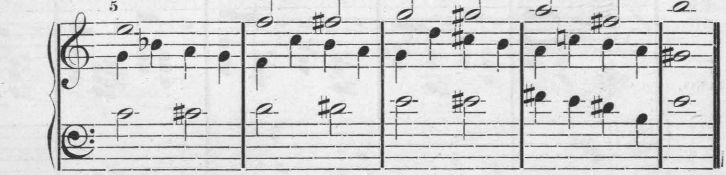
Ex. 478.



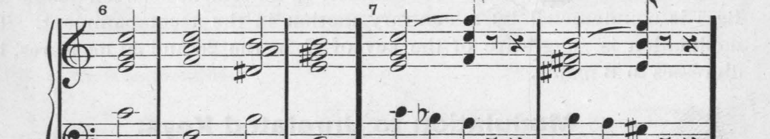
b♭ easier for voices, a♯ more correct notation.



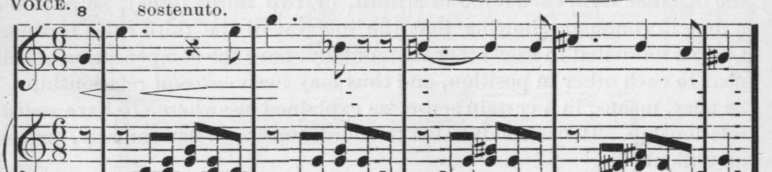
3 Voices.



§ 274. The following modulation (No. 6) is not unusual, nor entirely unvocal, but it is best adapted to instrumental execution.

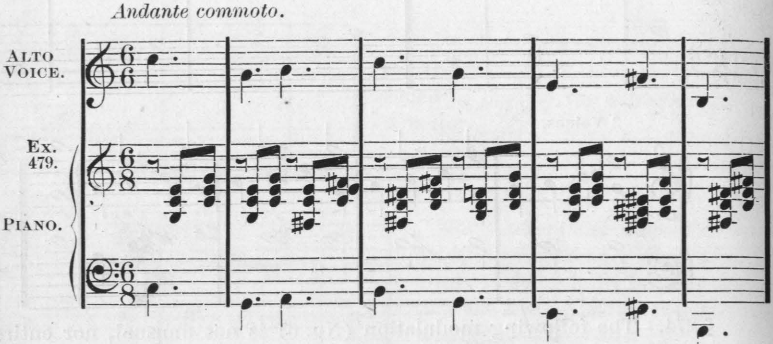


VOCAL FRAGMENT.



§ 275. The consecutive octaves which occur at No. 8 between voice and accompaniment are not reprehensible. Too much strictness in this style would fetter musical thought. Such progressions however must be avoided in the extremities, i. e. highest and lowest part, unless an intentional and long continued unison be desired, as for instance:

Ex. 479.



It will be observed that the similarity of movement between Treble and Bass is counteracted by a contrary motion in the accompaniment. The modulation is suggestive of the key of E in the 2d and 3d measures, but digresses to B major.

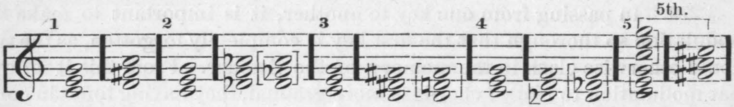
Modulation to Unrelated Keys.

§ 276. Unrelated chords, nearest to each other in *position*, are the most dissimilar and farthest in *relationship*. To be related, chords must be at the distance from each other of a third, or two thirds (5ths), so as to have a tone in common, showing that the interval of the third rules Harmony. Chords unrelated to each other harmonially, have the compensation of being near to each other in position, and thus may form *melodial* relationship. To be near, means, in a certain sense, as explained elsewhere, to have *melodial* relationship. Hence modulation to chords unrelated harmonially, presents no difficulty.

Chords or Keys unrelated harmonially.

§ 277. The most unfavorable of these, for transit from one to the other, is the combination No. 1 at the following example: C and D. major, on account of the cross-relation caused by the Tonic **c** and the 3d of the chord of the Dominant of D: **c♯**.

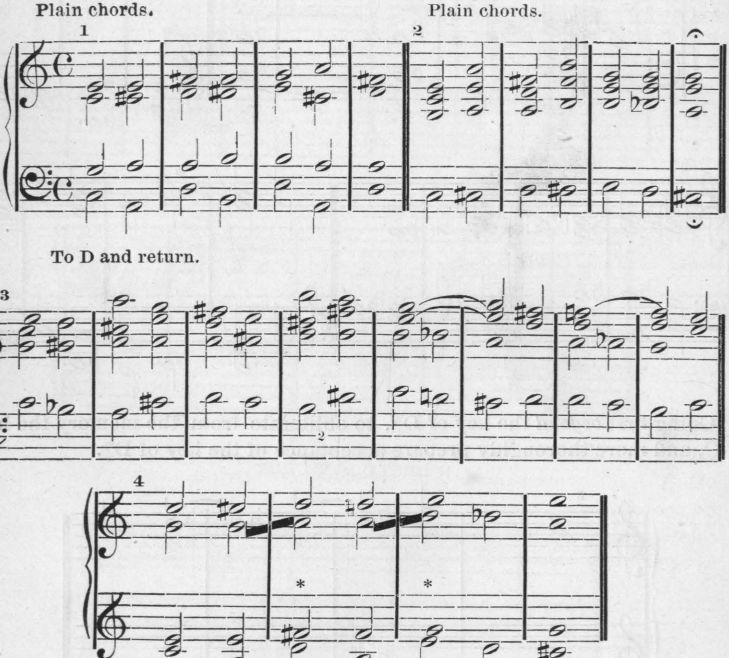
Ex. 480.



§ 278. No. 5 forms a combination of its own. The Triads upon **c** and **f♯** have no notes in common, therefore are not *harmonially* related; they are not *near* each other, and have therefore no *melodial* relationship. The two chords have nevertheless a *semblance* of relationship in the 5th, which exerts a sensible influence. They may also by art be connected through *melodial* relationship (Ex. 485).

C TO D.) (Diatonic.)

Ex. 481.

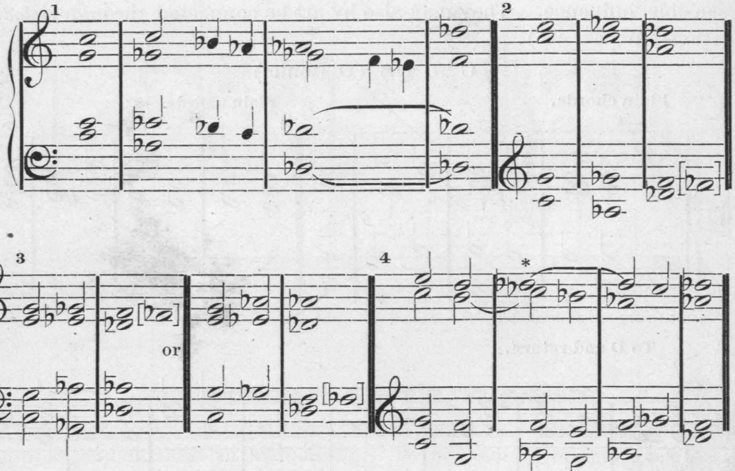


At No. 4 the subleader is allowed to ascend, the indentical resolution tone being supplied by the Tenor (*).

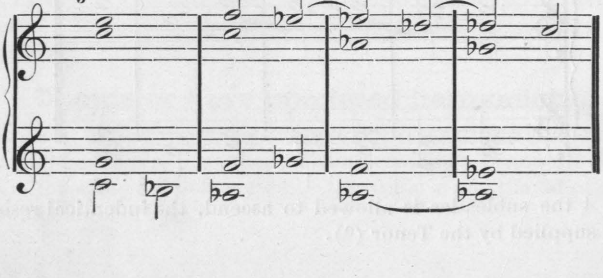
§ 279. In passing from one key to another, it is important to make the modulation so thorough that the first key is completely forgotten, as the two would otherwise clash in the memory of the listener. From this it follows that modulation to *related* chords is more gradual, they having tones in common with corresponding similarity, and modulation to unrelated chords more sudden, because they are dissimilar, having no tones in common.

C TO D♭ (Chromatic.)

Ex. 482.

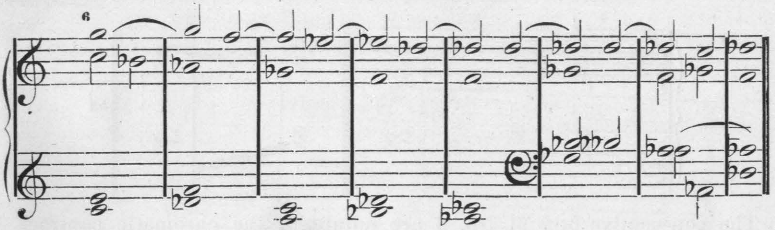


Going first *begond* the key of D♭, to obliterate from the memory the key of C, and more thoroughly prepare acceptance of the key of D♭.



(Ex. 482 continued.)

6



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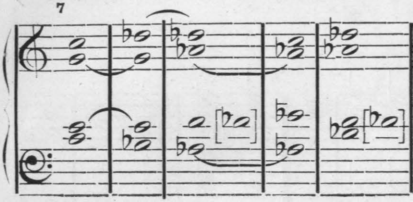

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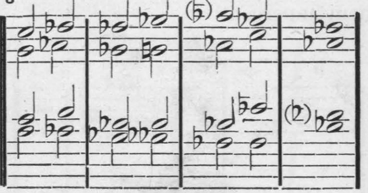

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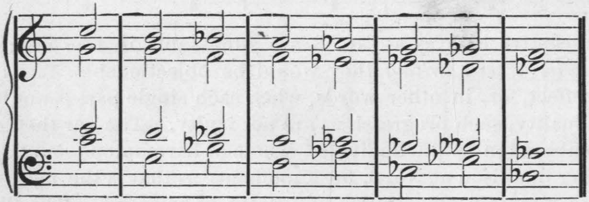
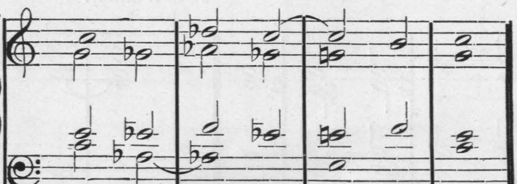


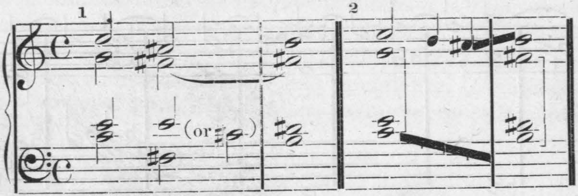
C and D♭ and return.

10

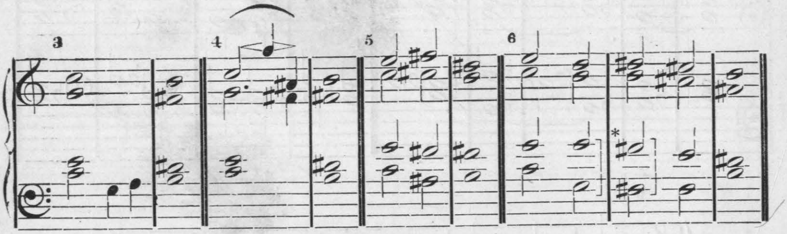


C TO B. (Chromatic.)

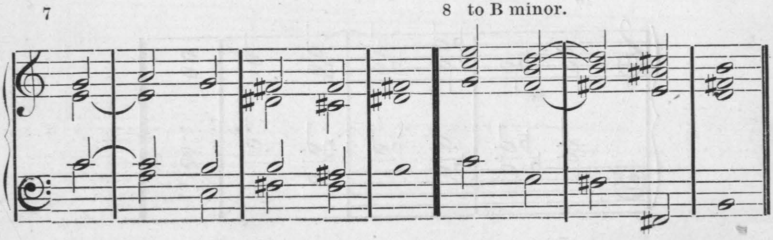
Ex. 483.



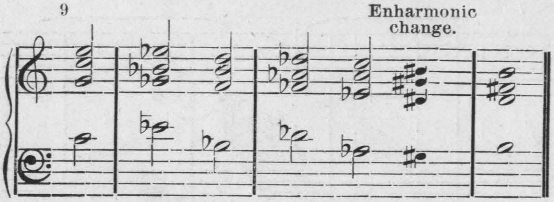
The consecutive 5ths at No. 2 are admitted, the chromatic contrary movement between Treble and Bass, at the moment of modulation, making them imperceptible.



The consecutive octaves at No. 6 are admissable in free instrumental style. In *strict 4 part writing* they would be objectionable. As a merely harmonial effect, or, in other words, when each single part is not invested with individuality, such progressions are not faulty. The ear then receives the tone combination as an undivided whole of harmonious sound. Tenor and Bass sing in unison at No. 6, for a moment, as that is the most obvious expedient to maintain smoothness and unity of harmony. The Tenor in this case forms the Bass at *; the latter merely supports and enforces the former.

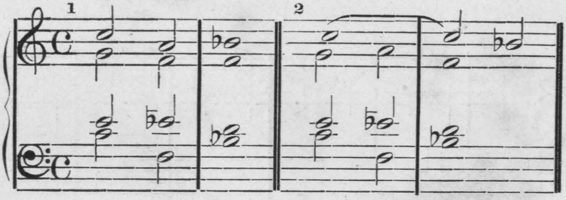


(Ex. 483 continued.)

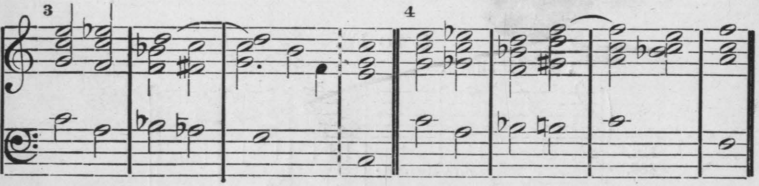


C TO D♭ (Diatonic.)

Ex. 484.

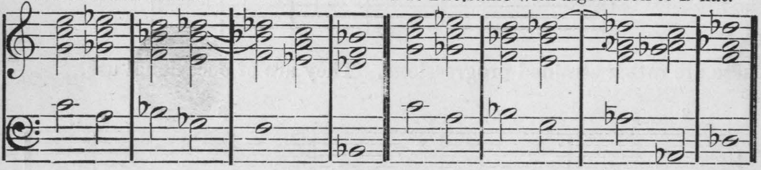


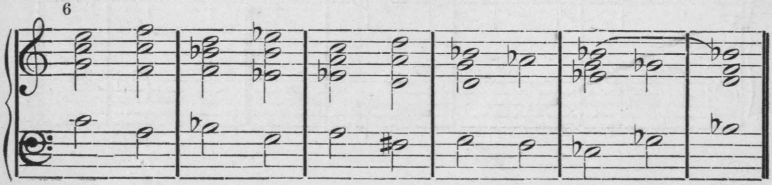
C to B♭ with diversion to F.



5 a. to B flat minor.

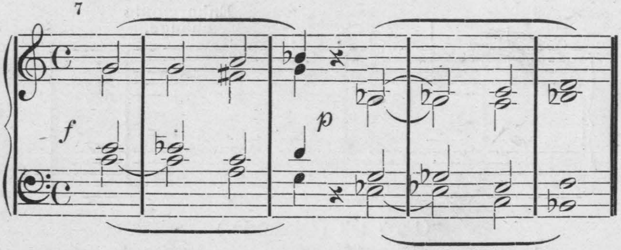
5 b. The same with digression to D flat.





(Ex. 484 continued.)

7



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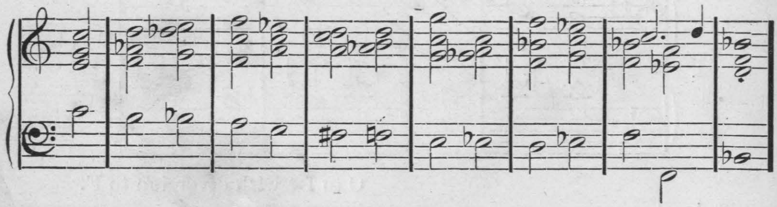
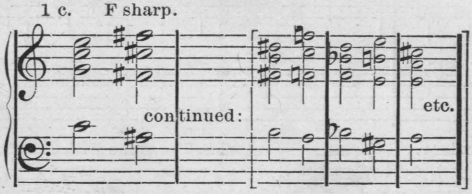
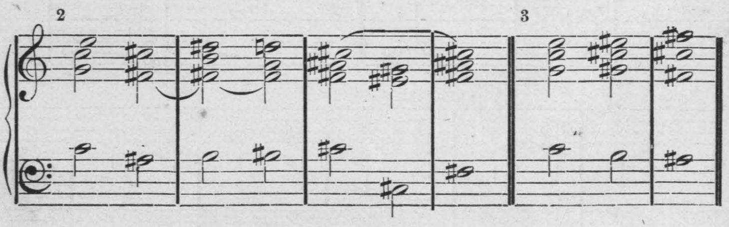


C TO F♯.

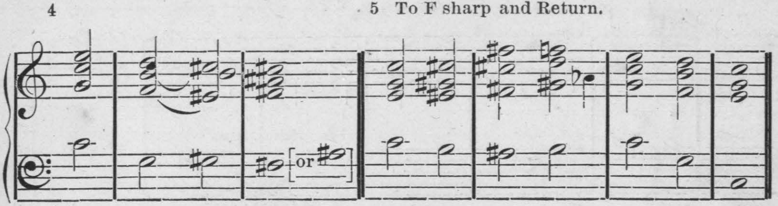
Ex. 485.



These are rather strained progressions. They are of occasional use.



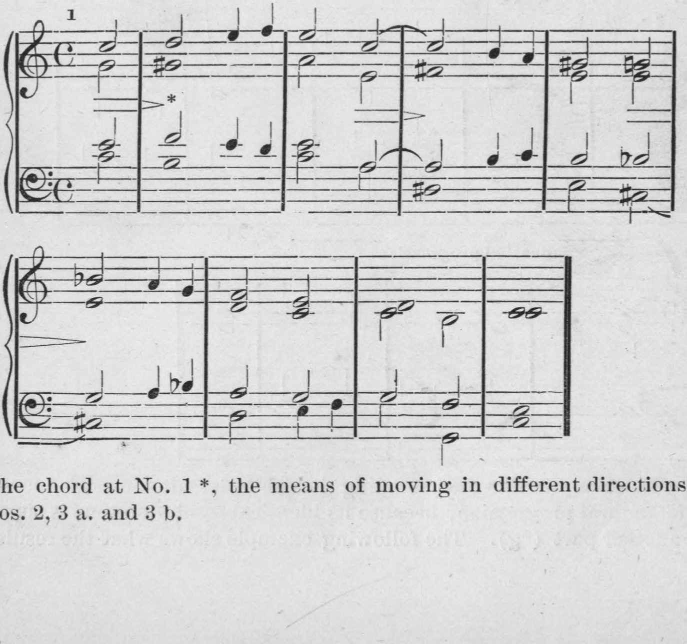
(Ex. 485 continued.)



Some Examples of Modulation by means of Chords of the Diminished 7th.

§ 280. Judiciously employed, the chord of the diminished 7th admirably serves as a connecting link between near or distant keys. Care must be taken that the keys, thus connected, do not clash. In all transitions from key to key, there must be logic and intelligible design. The basis of musical logic and design is relationship, which must be made evident, either in an harmonial or melodial sense.

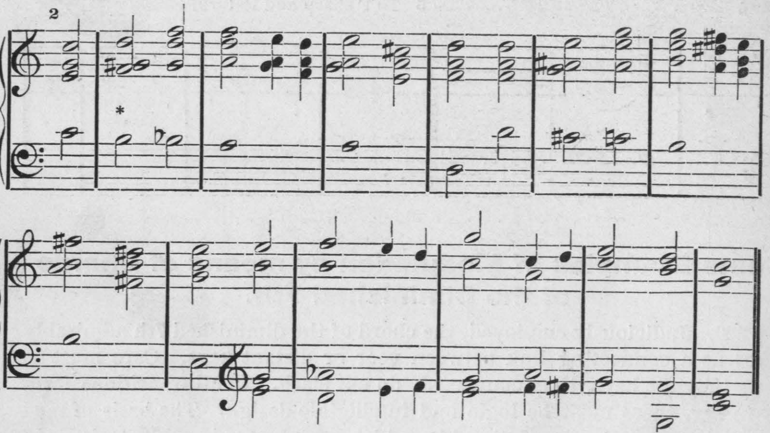
Ex. 486.



The chord at No. 1 *, the means of moving in different directions, as at Nos. 2, 3 a. and 3 b.

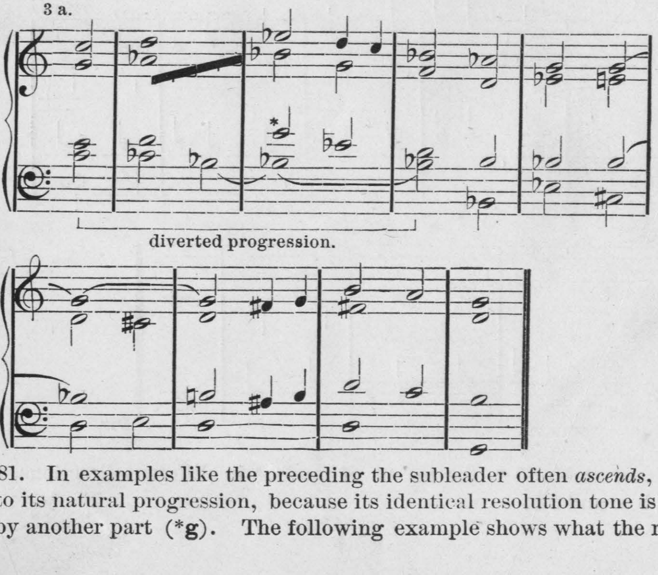
(Ex. 486 continued.)

2



Still another diversion by means of the same chord, enharmonically changed.

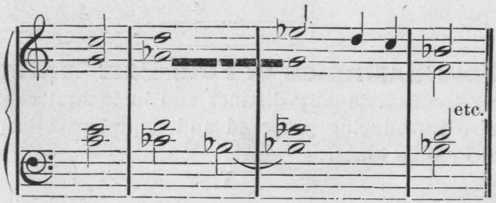
3 a.



§ 281. In examples like the preceding the subleader often *ascends*, contrary to its natural progression, because its identical resolution tone is supplied by another part (*g). The following example shows what the result of natural progression would have been. Both are acceptable, but the *diverted* progression at 3 a. is fuller and richer in harmony, and better supports the upward course of the melody.

(Ex. 486 continued.)

3 b.



natural progression.

§ 282. Examples of modulation by means of the chord of the diminished 7th might be multiplied indefinitely, and have been largely furnished (incidentally) throughout the book. We may therefore herewith bring to a close our special chapter of modulation.

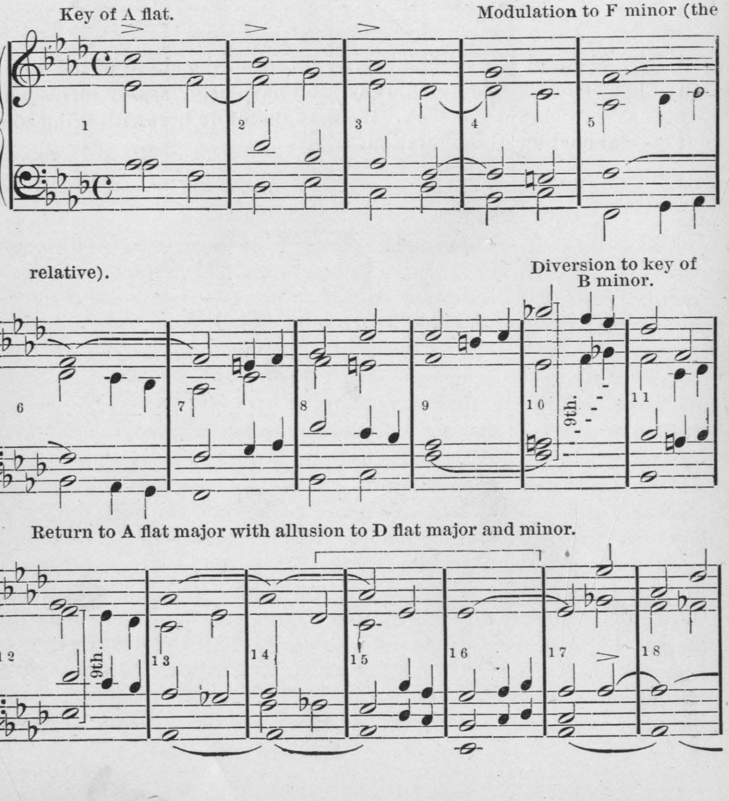
PART III.

Four Examples of Four-Part Writing

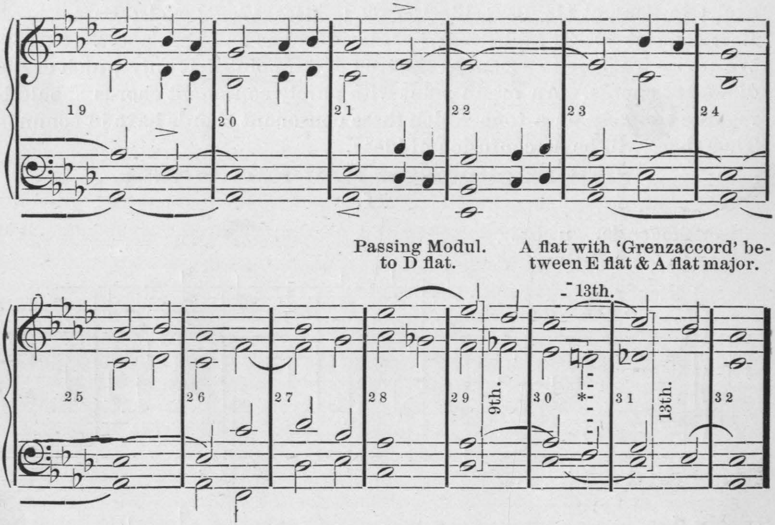
Containing the individually distinct and incidental chords, previously discussed; also introducing prepared and unprepared Suspensions, Anticipations and Passing tones.

I.

Ex. 487.


Key of A flat.
Modulation to F minor (the
relative).
Diversion to key of B minor.
Return to A flat major with allusion to D flat major and minor.
1
2
3
4
5
6
7
8
9
10
9th.
11
12
9th.
13
14
15
16
17
18

(Ex. 487 continued.)

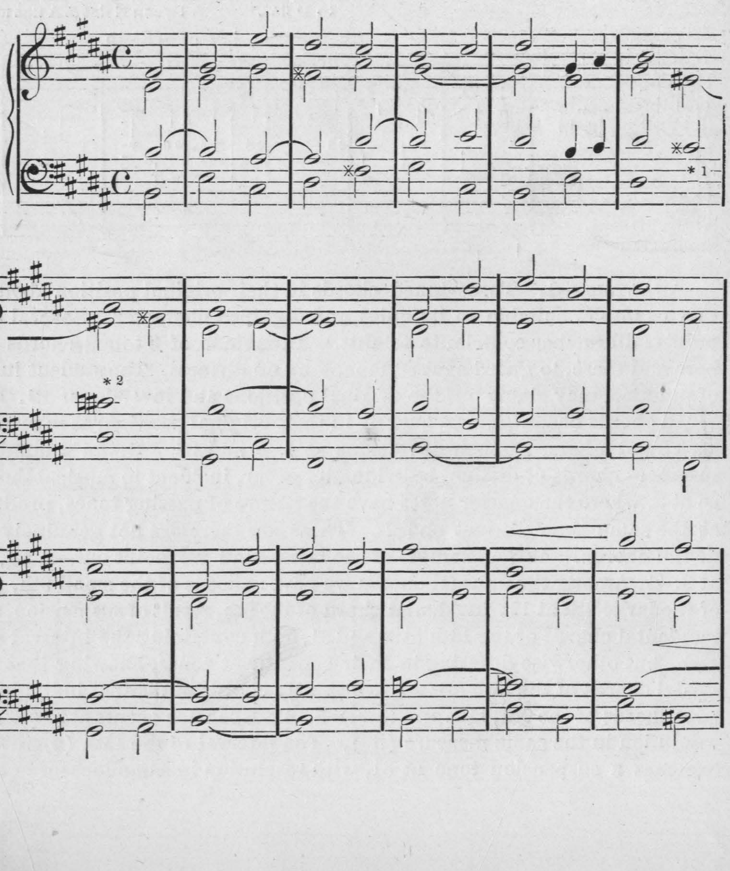

19
20
21
22
23
24
Passing Modul. to D flat.
A flat with 'Grenzaccord' between E flat & A flat major.
13th.
25
26
27
28
29
9th.
30
*
31
13th.
32

ANALYSIS.—**1.** Three-toned chords in their original position abound in this example, suitable to its quiet and dignified character. Several organ points still further contribute to this. Inversions of 3 toned chords occur here and there, to guard against monotony or stiffness. The student in need of practice, may single out the original positions and inversions. **2.** Four-toned chords occur quite frequently in their original position, as in measures 13, 17 and others, in their inversions at 4, 8 and 28. **3.** In a number of instances chords of distinct individuality occur, incident to musical thought, as at 5, where the quarter notes have the nature of passing tones, producing at the same time distinct chords. These are therefore not genuinely incidental chords. As an example of the latter kind we point out—**f, a♭, b♮**—at 9. **4.** Among the unusual chords we have: chords of the small 9th, at 10; of the large 9th at 12; incidental chord of the 9th, result of suspension, at 29; incidental chords of the 13th at 30 and 31, both containing the interval of the 13th, but otherwise differing in their constituent tones, showing that incidental chords of the 13th are not necessarily chords of distinct individuality. (See chords of the 9th, 11th and 13th.) **5.** A suspension occurs at 29 (**e♭**) with resolution in the same measure (**d♭**), The interval of the 13th (**c**), at 30 *, becomes a suspension tone at 31, with resolution in same measure (**b♭** resolution tone). **6.** Organ points, in Soprano and partly in Tenor, at 5—8 excl.; in Bass, at 11; Bass, 13—16 excl.; Bass, 17—22 excl.; Bass, 23—26; Bass tone at 30—32 excl., may be interpreted as an organ point. **NOTE.**—We advise teachers to accept as the true organ point that only which carries dissonant chords. An organ point with purely consonant chords should be regarded merely as a tone which these consonant chords have in common. Thus there will be no confusion of ideas.

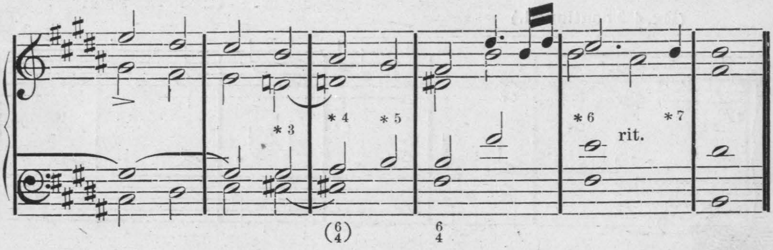
II.

Moderato. B major.

Ex. 488.



(Ex. 488 continued.)

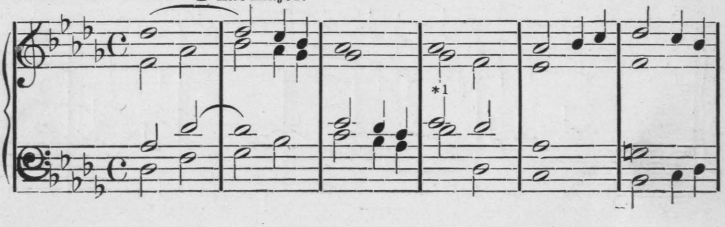


Analysis.—1. The form of this short piece is somewhat unusual, modulation into another key taking place before the original key is fairly established. An early diversion of this kind is only admissable when the key modulated into is a *relative* key, in this case G♯ minor, the relative minor of B major. The speedy and permanent return to the original key stamps the previous modulation into the relative minor as one of little importance. **2.** The chord at *1 is an incidental chord of the 13th; that at *2 a chord of the 9th, product of the suspension tone **e♯**. At *3 and *5 we have a chord of the Diminished 7th playing the part of a modified chord of the Subdominant, introducing with good point the chord of the 4-6, one well adapted to end a piece, from the desire it creates that a point of rest may be attained through resolution. At *4 an interesting *incidental* chord of the 4-6 (with enharmonic notation) results from the progression of the Soprano and Tenor parts. Beautiful chords of this nature are often met with in the compositions of Franz Liszt. At *6 there occurs a suspension, and at *7 an anticipation, making the closing chord the more acceptable from the highly dissonant nature of the latter (anticipation). **3.** The student will observe that the four parts of this piece move fluently throughout, presenting no vocal difficulty, although unusual and difficult tone combinations have been introduced. These tone combinations are in fact merely incident to the musical thought. **4.** The four voices move within their proper compass. **5.** There are covered traces of immitation, which the student may discover.

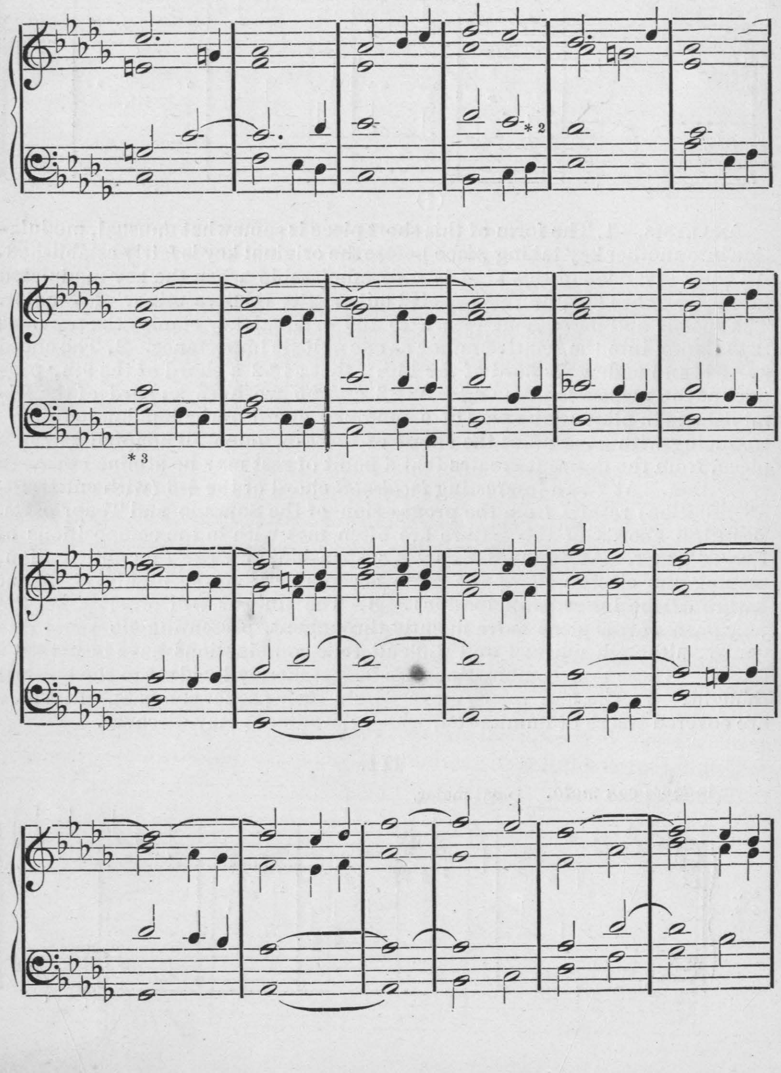
III.

Andante con moto. D flat major.

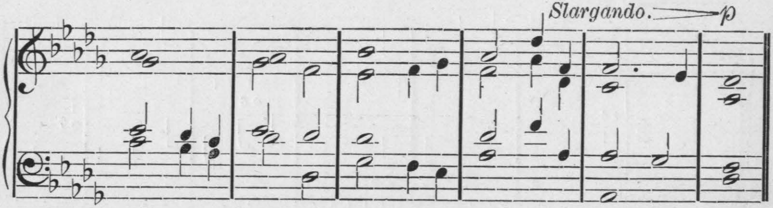
Ex. 489.



(Ex. 489 continued.)



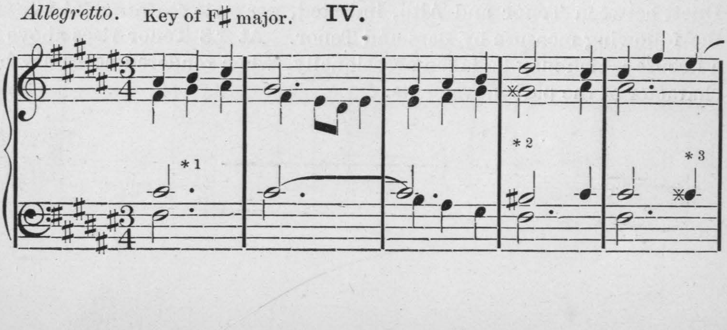
(Ex. 489 continued.)



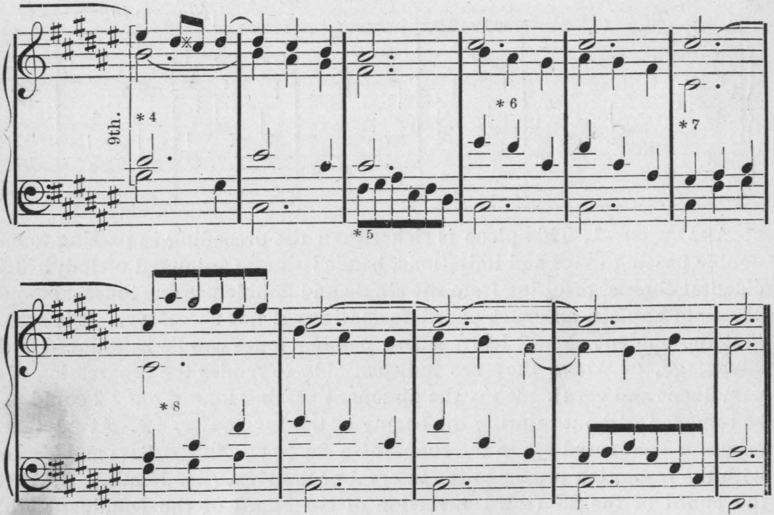
ANALYSIS.—**1.** This piece is richer than the preceding in passing tones, double passing tones and imitations, hence its more animated melody. Incidental chords, resulting from the single and double passing tones, abound. These to explain as exact chord formations is not necessary. It is better that the student should learn where passing tones can be introduced with advantage, or where they are indispensable to render the progression of a part fluent and vocal. Thus the dissonant passing tone **d♭** at * 2 could not be removed without injuring the beauty of the harmonies. **2.** At * 1 there occurs a condensed 9th in the shape of a 2d (**c d**), in the Bass and Tenor, with the resolution proper to the interval of the 11th. (See Ninth.) **3.** At *3 the chord of the 2d (third inversion of the chord of the Dominant 7th) comes in with good effect. **4.** The form of this example is rather more pronounced than that of the previous one. It has two distinct subjects, the second one being given by the Bass at *3. The first or opening theme (subject) distinctly returns at the close, thus deriving significance; at the same time the piece as a whole thereby acquires proportion and symmetry. **5.** It is scarcely necessary to add, that consecutive octaves, diatonic cross-relation, unvocal intervals, or awkwardly dispersed harmonies, have been carefully avoided. The leading tones move according to their natural inclinations, except where special circumstances, such as completing a chord, or supplying the resolution in another part, render an opposite move necessary.

Allegretto. Key of F♯ major. **IV.**

Ex. 490.



(Ex. 490 continued.)



Analysis.—At * 1, mixture of the chords of the Tonic and Dominant. At * 2, free entrance of the chord of the diminished 7th. At * 3 chord of the extreme 5th, forming through passing tone 𝅝 an incidental 7th chord of the 7th, modified by the same extreme 5th. At * 4 the interval of the 9th forms a rather sharp dissonance, justified, however, by the movements of the parts, which exclude the 5th, rendering the chord incomplete. * 5 points out the figured Bass, giving animation to the piece. To justify the existence of this figure, it must be repeated, which is done by the Soprano and later by the Tenor, although in each case in varied shape. * 6 shows a short Duett between Tenor and Alto, imitated, *per moto contrario*, at * 7, and in the following measure by Bass and Tenor. At * 8 Tenor rises above Alto, a license which may be taken occasionally, when rendered necessary by the character of the part movements.

ACCENT and FORM.

§ 283. The detailed exposition of musical form properly belongs to the *Art of Composition*, the sequel of the study of Harmony. The examples given in the present work do not call for more than the general laws of accent and symmetry.

§ 284. In writing any piece of music, however short or simple, we must arrange it in such a manner, that the fundamental accent (see Accent, Primer), which governs its progress and serves to impress ear and mind with the meaning and expression proper to any musical thought, is unmistakable.

§ 285. We must determine (or discover, since composition is often inspirational or unconscious) whether the first chord or tone of a melody is accented or unacccented.

§ 286. We have stated elsewhere (see Primer) that in music the first of every two, or the first of every three tones, has an accent. In this resides the intelligibility of successive chords or tones. Without it, no orderly thought or musical meaning could be conveyed to the mind of the listener. To express it practically, we must sing or play either in duals (by two) or triplets. Neither of these could be perceived unless the first of either were marked by an accent. But this accent may be so refined and spiritual in its nature that we have no physical sense of its existence. Man in all his doings and thoughts is rhythmical, and the *musical* accent corresponds to, or is the result of, the rhythmical nature of man. Still, there is the contrast of the *two* and *three*, and the singer or player contrives (generally unconsciously) to create in the mind of the listener the desired rhythmical oscillations by an occasional *expressive* accent—as we have called it elsewhere in distinction from the unperceived (or rather unmarked) *fundamental* accent.

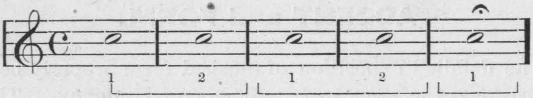
§ 287. In a piece or chord series, written in common time and whole notes (one for each measure), the first *must* be an accented chord, for an unaccented chord can only be a *part* of a measure, not a *whole* measure.

§ 288. When the first chord is to be unaccented, we must write in half notes, or notes of smaller denomination: quarters, eighths, sixteenths etc., etc.

§ 289. We may, of course, write in half, quarter, or any smaller denomination of notes, and commence with an accented part.

§ 290. In the following example we proceed by whole notes, one tone for each measure. Here the *fundamental* accent is consequently to be found in the *first* of the *two* measures.

Ex. 491.



§ 291. The last chord or tone of any series or piece (and in this there can be *no* exception) invariably has the fundamental accent, as shown in Ex. 489, and the following, in which each number may represent a tone:

Ex. 492. ∧ 1 2 | ∧ 1 2 | ∧ 1 2 | ∧ 1 || or: Ex. 493. ∧ 1 2 3 | ∧ 1 2 3 || ∧ 1 2 3 | ∧ 1 ||

These examples furnish to all appearance perfect rhythm or measure. Still more satisfactory however, that is, not *apparently*, but *really* perfect is the following:

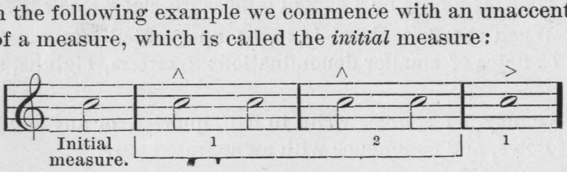
Ex. 494. > 1 2 | > 1 2 | > 1 2 | > 1 2 | > 1 || or another: Ex. 495. > 1 2 – 3 4 | > 1 2 – 3 4 | > 1 ||

The difference between Exs. 492 and 493 and Exs. 494 and 495, with preference in favor of the latter two, lies in the fact that Exs. 492 and 493 do not afford so complete an ending as Exs. 494 and 495. Imagining the fundamental accent to be perceptible in Exs. 492 and 493 upon the first two *measures* (instead of the first of 2 *parts* in each measure), we have no positive ending at all. The same test applied to Exs. 494 and 495 gives us two *complete* measures, the first of which has the fundamental accent, and then furnishes us the accented ending. Hence it frequently occurs that we meet with 9 or 7 measures (or some other odd number), 8 or 6 of which constitute the motion regulated by accent, while the 9th or 7th constitute the accented ending. These circumstances must be taken into account when examining the symmetry of a piece.

§ 292. Thus we recognize that the ending of all pieces must be accented, while the beginning may be accented or unaccented.

§ 293. In the following example we commence with an unaccented tone, hence *part* of a measure, which is called the *initial* measure:

Ex. 496.



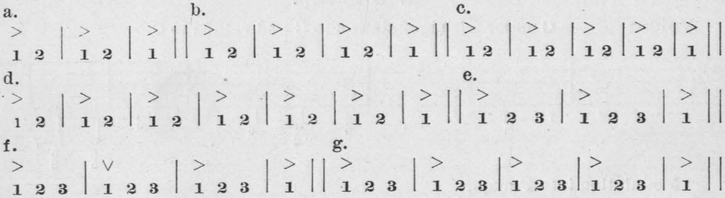
§ 294. We repeat here that in writing a series of chords, or a piece, it must be determined whether the first chord or tone is accented or unaccented, and *written accordingly*. Then, while writing, we must bear in mind that Symmetry and Rhythm must make our series an orderly one, closing with a positively accented chord.

§ 295. In Hymns or other tunes, shape and symmetry are determined by the words, resulting in either simple or combined Rhythm. But whether instrumental or vocal, all kinds of Rhythms are possible, making it merely conditional that there shall be logic in number and proportion.

§ 296. Time-Logic is based upon repetition, just as time itself and accent become appreciable by the repetition of even time-lengths.

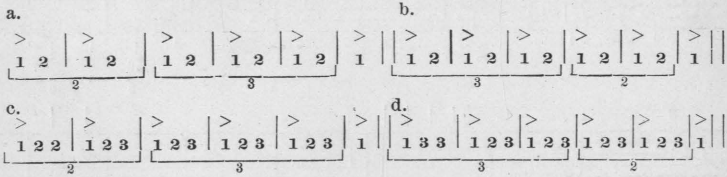
Examples of Simple Rhythm.

Ex. 497.



Examples of Combined Rhythm.

Ex. 498.



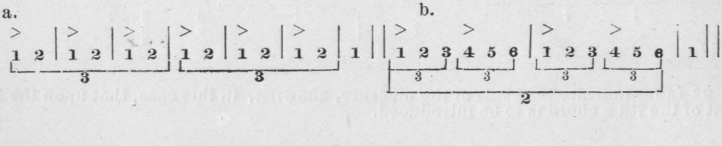
§ 297. These examples prove the fundamental law that Time in Music is based upon the numbers 2 and 3, with the accent upon the first of either.

§ 298. One of these two is *always* present, sometimes a combination of both.

§ 299. The law is the same, whether applied to a series of tones or a series of measures; in other words, the law of accent rules single tones as well as measures of tones.

§ 300. The time entities of 2 and 3 often move together.

Ex. 499.



§ 301. With these rules clearly understood, students will be able to give good form to chord series of their own composition.

§ 302. We desire to impress it upon the reader that a piece is not necessarily incorrectly written, because it shows irregularities in the number of measures, since the fundamental accent by 3 must inevitably produce other odd numbers.

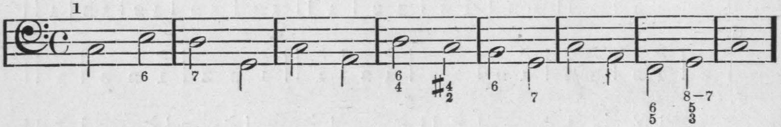
Basses and Melodies for Exercises in 4 parts.

NOTE.—Signatures *over* the Bass, as at * 1, refer to chords upon organ point. Such chords are incomplete; their foundation tone is given in small notes.

I. BASSES.

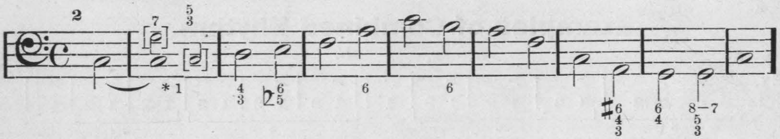
VOICES. C major with modulation to G and return to C.

1

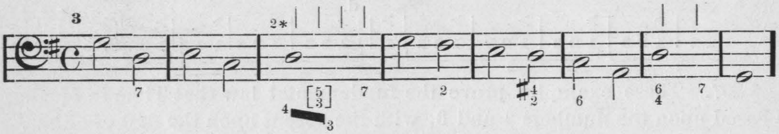


Modulation into F major.

2



3



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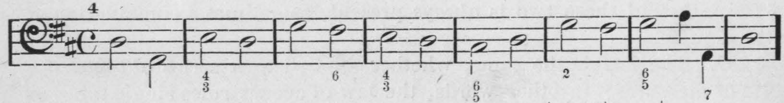

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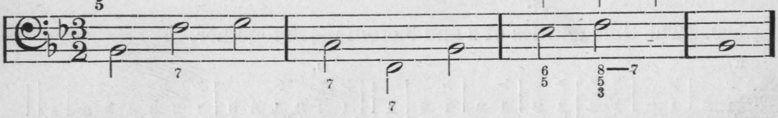
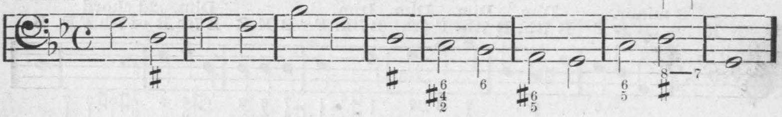


2* Lines indicate the beats of the measure, showing, in this case, that upon the last beat of the 7th a chord is to be introduced.

PIANO. 6



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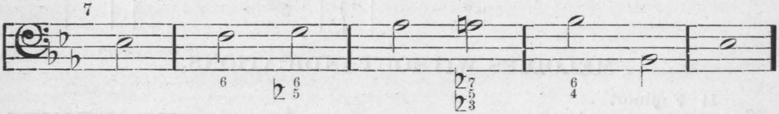

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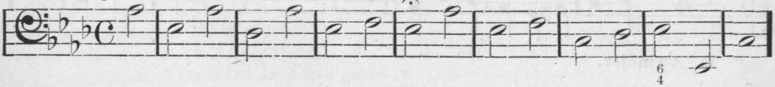

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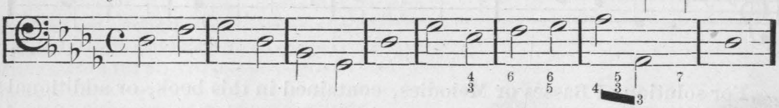


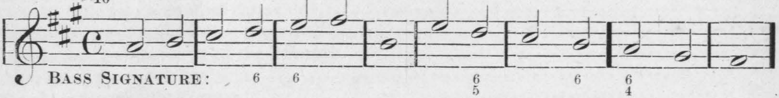
II. MELODIES.

The student will write Bass and middle parts.

A major.

CHORDS: A E A D A D E E E A B A E A

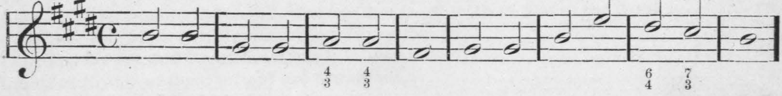
10



E major.

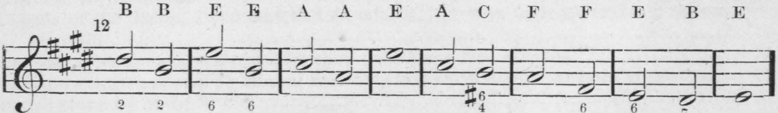
E E E E B B B E E E C B F B

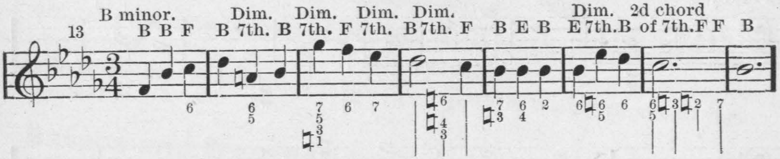
11



B B E E A A E A C F F E B E

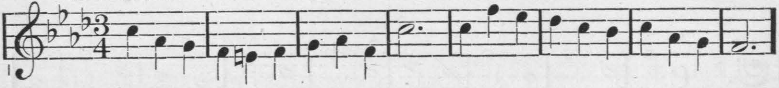
12



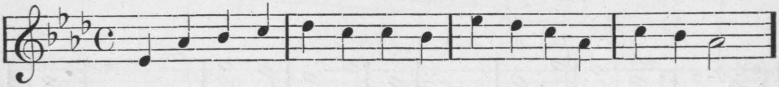


MELODIES WITHOUT INDICATIONS.

14 F minor.



15 A♭ major.



For solution of Basses or Melodies, contained in this book, or additional Basses or Melodies as exercises, apply to Robert Goldbeck, care of Kunkel Bros., Music Publishers, 311 S. Fifth Street, St. Louis, Mo.

INDEX TO HARMONY.

PAGE

Analysis of the Major Chord of the Tonic 39
Authentic Perfect Close 65
Authentic Imperfect Close or Cadence 65
Anticipation 104
Accessory Tones 110
A Hybrid Mode 151
Alliances, Some Examples of 189
Accent and Form 237
Beginning or Ending Chord of a piece 47
Bass Signatures 96
Basses and Melodies for Exercises in 4 parts 240
  I. Basses 240
  II. Melodies 241
Concord and Discord 11
Concords, Different kinds of 13
Chords, Forming of 23
Chords, Three-toned 23
Chords built upon the 7 Tones of the Scale 24
Chord next in importance to that of the Tonic 26
Chord of the Subdominant 28
Chord (plain) of the Dominant 29
Chords, Four-toned 31
Chords and Triads of the Seventh analogous to Concord and Discord 32
Chords (Resolution of 4-toned into 3-toned) 32
Chords, The two principal classes of 32
Chords (3-toned) made dissonant 33
Chords (mild and sharp) of the Seventh 33
Close and Dispersed Position 35
Chords indicated by Figures 38
Chords, the Musical Succession of 41
Chords arranged for Voices 65
Chords of the Tonic and Dominant 7th, Successions of 66
Chords of the Dominant 7th followed by Chords other than that of the Tonic 68
Chords of the Tonic and Dominant 7th, Inversions of 68
Chord of the 4th and 6th of the Tonic 70
Chord of the 6th of the Chord of the Dominant 70
Chord of the Dominant 7th, Inversions of 73
Chords of the Tonic, Dominant and Dominant 7th, with their Inversions, Successions of 74
Chords of the Tonic and Dominant upon their Foundation Tones 74
Chords of the Tonic and Dominant and their first Inversion, the Chord of the 6th 76
Chord of the 4-6 of the Tonic 78
Chord of the 4-6, Preparation of 79

PAGE
Chord (Incidental) of the 4-6 79
Chord of the Tonic and Dominant 7th upon their Foundation Tones 81
Chord of the Dominant 7th—First Inversion: Chord of the 5-6 83
  Second Inversion: Chord of the 3d and 4th 84
Chords of the 3-4 and Tonic, Further Examples of 88
Chord of the Second—third Inversion 88
Chord of the Second, other Examples of 89
Change from the Chord of the Dominant to the Dominant 7th, ... 94
Chord Series containing Fundamental Positions, Inversions and Suspensions 103
Chords of the Tonic and Dominant, Mixture of 107
Conjunct Diatonic Passing Tones upon an Accented Part 113
Chord of the Subdominant in connection with the Tonic 128
Chord of the Subdominant at distant Intervals 129
Chord of the 6th of Tonic and Original Position of Subdominant 131
Chord of the 6th of the Subdominant 131
Chords of the Subdominant and Dominant in contrary movement 133
Chords of the Dominant and Subdominant 133
Chords (Repeated) with Melodious Treble 136
Chord Series upon Organ Point with Flowing Melody 136
Chord of the 6th of Subdominant introducing Chord of the 4-6 of Tonic 141
Chords, Major and Minor 144
Complete Major and Minor keys 145
Chords related in the Third (other) 150
Chord Series introducing the Major and Minor Chords 152
Chord Series upon Foundation Tones 156
Cross-Relation 157
Cadence, Deceptive 158
Chord Series with Inversions, Suspensions, Passing tones, Imitations, etc 159
Chord of the Extreme Fifth 169
Chord of the Extreme Fifth allied to unrelated Chords 171
Chords of the Scale combined 171
Chords (Incidental) by means of Organ Points and Diatonic and Chromatic Passing Tones 173
Chords of the Seventh, or 4-toned Chords 174
Combining different positions 184
Chords of the Diminished 7th 188
Chord of the Diminished 7th upon Organ point 191
Chromatic Series of Chords of the Diminished 7th 192
Cross-Relation not always objectionable in chromatic series 192
Chords through Modification and Chromatic Progression, Series of 194
Chords of the Diminished 7th associated with the 3-toned Chords of the scale, irrespective of inversion 195
Chord Series, in 4 parts, of Triads and Diminished Chords of the 7th 196
Chord of the Diminished 7th introducing the Chord of the 4-6 197
Chords, Fundamental and modified 198
Chords, Incidental 198
Chords, Modified 198
Chords containing the Extreme or Augmented Sixth 198

PAGE
Chord of the 9th 201
Chords of the 9th, 11th and 13th progressing to Chords of distinctly different individuality 202
Chord of the 9th as a Suspension Chord 203
Chord of the 9th one of Distinct Individuality 204
Chords of the 11th and 13th as Chords of the 7th upon Organ points 204
Chords or Keys unrelated harmonially 220
Combined Rhythm, Examples of 239
Different kinds of Intervals 8
Different kinds of Concords 13
Dominant, The plain Chord of the 29
Doubled Tones 30
Different Intervals resulting from the Doubling of Tones 31
Direct, Oblique and Contrary Movement 43
Dominant 7th (Chords of) followed by Chords other than that of the Tonic 68
Distance of Interval limited in the Bass 92
  Each stop a new Chord 93
  Basses for Similar Exercises 93
Double Organ Point through Doubling of the Fundamental Tone 106
Double Organ Point through Tonic and Dominant 106
Diatonic Passing Tones, based upon the Harmony of the Chord of the Tonic 110
Double Passing Tones 115
Dominant to Tonic 130
Dominant and Subdominant, Chords of 133
Dissonant Chords (Four-toned or) in their relation to the Major and Minor Mode 145
Distinguishing Character of the Major and Minor Modes 150
Deceptive Cadence 158
Diminished Triad 163
Diminished Triad as a part of the Chord of the Dominant 7th 165
Diminished Triad upon the Leading Tone of the Relative Minor Scale 166
Diminished Triad in its Inversions 166
Dominant Chord of the Ninth (as part of the) 185
Direct Resolutions 187
Direct Progression based upon Direct Resolution 188
Diminished 7th, Chords of 188
Diminished 7th, Inversions of the Chords of 189
Diminished 7th upon Organ point, Chord of 191
Diminished 7th, Chromatic Series of Chords of 192
Exceptional Descending of the Leading Tone by a Third 66
Exceptional Ascending of the Subleading Tone 67
Examples combining all the previous Chords 89
  Repetition of the same Chords 90
  Repetition of the same Chords, but varied by Inversions 91
  The Subleader may ascend in the same Chord 91
Example in which the student shall introduce two Suspensions 104
Exercises 108
Examples of Conjunct Diatonic Passing Tones, prepared and unprepared 111
Example with Harmony added in the Bass 112

PAGE
Exercise for the student to add Passing tones or Melody tones, according to circumstances 113
Enriching the Melody 138
Extreme Second 157
Examples of short Chord Series in either or both Modes 161
Extreme Fifth, Chord of 169
Examples of Inversions 183
Examples of Alliances 189
Examples of Modification and Resolution 191
Examples in 4 parts 200
Examples of Modulation by means of Chords of the Dominant 7th 227
Examples (four) of Four-part Writing 230
Examples of Simple Rhythm 239
Examples of Combined Rhythm 239
Forming Chords 22
Fifth, the pivot and central point of the two most important Chords 27
Four-toned Chords 31
Four-toned Chords, Inversions of 36
Fourths, Successive 46
Fourth (the) as a Discord 47
Fourth and Sixth of the Tonic, Chord of 70
Fanciful Melody 75
Faulty Progressions through the Doubling of the Third 77
Fluency of the single parts attained through the Doubling of the Third 77
Further Examples of the Chords of the 3–4 and Tonic 88
Figuration of Parts 126
Four-toned or Dissonant Chords 145
Foundation Tones, Chord Series upon 156
Four-toned Chords, or Chord of the Seventh 174
Fundamental and Modified Chords 198
Four Examples of Four-part Writing 230
  I 230
  II 232
  III 233
  IV 235
General Laws of Relationship 150
Harmony 5
Harmonial Influence of the two Leading Tones of the Scale 27
Hybrid Mode 151
Intervals 7
Intervals, Different kinds of 8
Inversion of Intervals 16
Inversion, Rules of 17
Intervals (Method to learn the) 19
Intervals (Complete Table of) formed by the Major and Minor Scales 20
Inversion of Triads 34
Inversions of 4-toned Chords 36
Inversions of the Chords of the Tonic and Dominant 7th 68

PAGE
Inversions.. 69
Inversions of the Chord of the Dominant 7th.. 73
Incidental Chord of the 4-6.. 79
Inversions of the Chord of the Dominant 7th.. 83
First Inversion.. 83
Second Inversion.. 84
Imitation.. 124
Imitation, Different kinds of.. 125
Imperfect Plagal Close.. 129
Inversions with Single and Repeated Chords.. 137
Incidental Chords, by means of Organ Points and Diatonic and Chromatic Passing Tones.. 173
Inversions, Examples of.. 183
Indirect or Delayed Resolution.. 188
Inversions of the Chords of the Diminished 7th.. 189
Incidental Chords.. 198
Inversions of the Chord of the Ninth.. 204
Keys, Complete Major and Minor.. 145
Key (The Formula of a Complete).. 14
Leading Tone ascends.. 25
Leading Tone, Exceptional Descending by a Third.. 66
Laws of Relationship (General).. 150
Music.. 5
Melody.. 5
Major Scale in C.. 7
Method to learn the Intervals.. 19
Mild and Sharp Chords of the Seventh.. 33
Major Chord of the Tonic, Analysis of.. 39
Musical Succession of Chords.. 41
Musical Succession defined.. 41
Movement, Uniform, Conjunct and Disjunct.. 42
Movement, Direct, Oblique and Contrary.. 43
Movement, Comparative Value of Direct, Oblique and Contrary.. 44
Melody, Fanciful.. 75
Mixture of the Chords of the Tonic and Dominant.. 107
Major and Minor.. 144
Major and Minor Scale.. 146
Minor Chords (The three Principal).. 148
Minor Chords, Successions of.. 149
Major and Minor Modes, Distinguishing Character of.. 150
Minor Mode, the Second Principal Chord of.. 152
Modified 7th.. 186
Modification and Resolution, Examples of.. 191
Modified Chords.. 198
Modulation.. 206
C to E Minor and Return.. 209
Key of C with Partial Modulation to G (upon Organ point) and D minor.. 210
C to D minor.. 210

PAGE

- C to G by way of E minor 211
- C to F through D minor 212
- C to E flat 215
- C to A flat 216
- C to F minor 217
- C to F minor and Return 217
- C to A major 217
- C to E major 218

Modulation to Unrelated Keys 220

- C to D (Diatonic) 221
- C to D flat (Chromatic) 222
- C to D flat and Return 223
- C to B (Chromatic) 224
- C to D flat (Diatonic) 225
- C to B flat with diversion to F 225
- C to B flat minor 225
  - The same with digression to D flat 225
- C to F sharp 226

Melodies (and Basses) for Exercises in 4 parts 240
Melodies without Indications 242
Ninth, and the Chords of the 9th, 11th and 13th 200
Ninth, Chord of 201
Other Examples of the Chord of the Second 89
Omitting Resolution Tone 99
Organ Point .... 105 and 212
Organ Point in the Treble 105
Organ Point in a Middle Part 106
Organ Point (Double) through Doubling of the Fundamental Tone 106
Organ Point (Double) through Tonic and Dominant 106
Opposite Inclinations of the Chords of the Dominant and Subdominant 130
Preface to Harmony 3
Part I—Preparatory to the Study of Harmony 5
Part II—Harmony 23
Principal Triad 34
Position, Close and Dispersed 35
Progressive Thirds 45
Progressive Seconds 45
Progressions (Faulty) through the Doubling of the Third 77
Preparation of the Chord of the 4–6 79
Passing Chord of the 4–6 by Anticipation 104
Passing Tones 109
Prepared and Unprepared Diatonic Passing Tones upon an Accented Part 114
Passing Tones, Double 115
Passing Tones applied to Chord Series 115
Proposta and Risposta 123
Perfect Plagal Close 129
Plagal Close, Imperfect 129
Progression (Direct) based upon Direct Resolution 188
Part III—Four Examples of Four-part Writing 230

PAGE
Resolution.......... 12
Resolution of Discords into any Imperfect Concord.......... 14
Resolution of Discords into Perfect Concords.......... 15
Rules of Inversions.......... 17
Rules concerning the two Leading Tones.......... 25
Relationship in the Fifth.......... 27
Resolution of 4-toned into 3-toned Chords.......... 32
Repose and Motion.......... 39
Resolution Tone Omitting.......... 99
Risposta, Proposta and.......... 123
Repeated Chords with Melodious Treble.......... 136
Relationship in the Third.......... 148
Relationship of the three Minor Chords among each other.......... 149
Relationship, General Laws of.......... 150
Relationship in the Fifth between a Major and Minor Chord.......... 153
Resolutions (Other).......... 185
Resolutions (Direct).......... 187
Resolution, Indirect or Delayed.......... 188
Relationship (Secondary) in the Third.......... 214
Rhythm (Combined), Examples of.......... 239
Sound and Tone.......... 5
Seven Tones (the).......... 5
Scales (the).......... 6
Subdominant, Chord of.......... 28
Seconds, Progressive.......... 45
Successive Fourths.......... 46
Successions of the Chords of the Tonic and Dominant 7th.......... 66
Subleading Tone, Exceptional Ascending of.......... 67
Sixth of the Chord of the Dominant, Chord of.......... 70
Successions of the Chords of the Tonic, Dominant and Dominant 7th with their Inversions.......... 74
Suspension, Anticipation and Organ Point.......... 94
Suspension (of the Tonic).......... 95
Signatures, Bass.......... 96
Suspension of the Mediant.......... 98
Suspensions of the Tones in the Chords of the Dominant and Dominant 7th.......... 100
Suspension of the 5th in the Chords of the Dominant and Dominant 7th.......... 101
Suspension of the 7th.......... 102
Subdominant to Tonic.......... 130
Successions of the Chords of the Tonic, Dominant and Dominant 7th and Subdominant.......... 135
Subdominant introducing Chord of the 4-6 of the Tonic.......... 139
Suspension in the Chord of the Subdominant.......... 142
Suspension with Ascending Resolution.......... 143
Suspensions from Subdominant to Tonic.......... 143
Suspensions from Subdominant to Dominant 7th.......... 144
Scale, Major and Minor.......... 146
Successions of the Minor Chords.......... 149

PAGE
Second, Extreme........ 157
Short Chord Series in either or both Modes, Examples of........ 161
Second Chord of the 7th in its relationship to the Dominant 7th........ 176
Second Chord of the 7th in the Minor mode, by lowering Third and Sixth of the same Key........ 178
Second Chord of the 7th associated with the Relative Minor Mode........ 178
Sixth and Seventh Chords of the 7th........ 186
Suspensions and Double Suspensions, prepared and unprepared........ 193
Series of Chords through Modification and Chromatic Progression........ 194
Secondary Relationship in the Third........ 214
Simple Rhythm, Examples of........ 239
The Seven Tones........ 5
The Scales........ 6
The Thirth........ 15
Table (Complete) of Intervals formed by the Major and Minor Scales........ 20
The Scale in its Relation to Harmony........ 23
Three-toned Chords........ 23
Tonic, Leading Tone........ 24
The Leading Tone ascends........ 25
The Scale with its distinguishing points........ 28
Triads and Chords of the Seventh analogous to Concord and Discord........ 32
The two principal classes of Chords........ 32
Three-toned Chords made dissonant........ 33
The Principal Triad........ 34
Triads, Inversion of........ 34
The Musical Succession of Chords........ 41
Thirds, Progressive........ 45
The Fourth as a Discord........ 47
Tonic and Dominant upon their Foundation Tones, Chords of........ 74
The Chords of the Tonic and Dominant and their first Inversion, the Chord of the Sixth........ 76
The Chord of the 4-6 of the Tonic........ 78
The Chord of the Tonic and Dominant 7th upon their Foundation Tones........ 81
Tones Accessory........ 110
The two Passing Tones between Fifth and Octave........ 111
The Chord of the Subdominant in connection with the Tonic........ 128
The Opposite Inclinations of the Chords of the Dominant and Subdominant........ 130
The Chords of the Subdominant and Dominant in contrary movement........ 133
The Chords of the Subdominant and Dominant 7th........ 133
The Formula of a Complete Key........ 145
The Major and Minor Scale........ 146
The three Principal Minor Chords........ 148
Third, Relationship in the........ 148
The Second Principal Chord of the Minor Mode........ 152
The Diminished Triad........ 163
Triad (Diminished) as a part of the Chord of the Dominant 7th........ 165
Triad (Diminished) upon the Leading Tone of the Relative Minor Scale........ 166
Triad (Diminished) in its Inversions........ 166

PAGE
The Chord of the Extreme Fifth.... 169
The Chord of the Extreme Fifth allied to unrelated Chords.... 171
The Chords of the Scale combined.... 171
The Second Chord of the 7th in its relationship to the Dominant 7th.... 176
The Third Chord of the 7th.... 179
The Fourth Chord of the 7th.... 181
The Fifth Chord of the 7th.... 182
The Sixth and Seventh Chords of the 7th.... 186
The Chord Series of the Diminished 7th introducing the Chord of the 4–6.... 197
The Ninth, and the Chords of the 9th, 11th and 13th.... 200
The Chord of the Ninth one of Distinct Individuality.... 204
Uniform, Conjunct and Disjunct Movement.... 42
Unprepared Diatonic Passing Tones upon an Unaccented Part.... 114
Unprepared and Unresolved Diatonic Passing Tones upon an Accented and Unaccented Part.... 114

MUSICAL SCIENCE PRIMER

OR

STUDY OF THE RUDIMENTS OF MUSIC

IN FIFTY-THREE LESSONS

(Preparatory to Goldbeck's Harmony)

BY

ROBERT GOLDBECK.

WITH INDEX.

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GOLDBECK'S MUSICAL SCIENCE PRIMER.

Introductory Remarks by the Author

THIS PRIMER is designed to be a Text Book in the study of the Rudiments of Music. It is divided into short Lessons, with Question to be put by the Teacher, and answered by the Pupil. In this way a short task, complete in itself, may be given to the scholar, while each question and answer will concentrate the mind upon a given thought, easily mastered, because free of side issues.

In art, musical or otherwise, nothing is more common than to have terms and names of confused or equivocal meaning creep into its technical language that should have no other design than shorten and facilitate the acquisition of knowledge. The cause of this may be found in the fact, that the many occupy themselves with art, while the few only understand it thoroughly. Many rules too are obscure, and not fully understood. To counteract, as much as may be, this serious drawback to a clear conception of the details of musical art (upon which depends the higher progress), the author has striven to explain minute details according to their *true* meaning. This will not be dry study, for light will be shed upon what seemed obscure, and the interest of the pupil will be awakened anew at each point successfully elucidated.

The Teacher may often find it convenient to omit temporarily certain questions, referring to them later. The pupil's capacity, desire to learn, and the amount of time that can be devoted to study, are considerations to be taken into account, in laying out a particular course.

To Piano Teachers, the undersigned would suggest the propriety of adding to at each of their instruction hours, a short rehearsal of one or two of the Lessons given in the Primer, training the mind as well as the fingers. In many cases, where some knowledge is possessed by more advanced pupils, weak points may be strengthened by a judicious selection of Questions and Answers.

ROBERT GOLDBECK.

GOLDBECK'S
Musical Science Primer
IN LESSONS.

LESSON I.
SOUND AND TONE.

Teacher.—What is sound?

Pupil.—Sound is the impression produced upon the mind, through the ear, by vibrations of the air.

T.—Is all sound musical?

P.—Sound may be mere noise, or it may be musical sound of *undetermined* pitch, such as the jingle of the Triangle or the beat of the Drum.

T.—What is tone?

P.—Tone is musical sound of *determined* pitch.

T.—How are noise and sound of undetermined pitch produced?

P.—By irregular vibrations of the air.

T.—How is musical tone or sound of determined pitch produced?

P.—By regular vibrations of the air and a certain degree of rapidity.

T.—In what manner are vibrations of the air produced?

P.—Through elastic vibrating bodies, such as Piano or Violin strings, whose vibrations are communicated to the air.

T.—How do we hear tones?

P.—The vibrations of the air are repeated upon the drum (tympanum) in the human ear, from whence they are communicated to the filaments of a nerve leading to the brain, there awakening in the mind consciousness of sound.

T.—How many different musical tones are there in practical use?

P.—Between 80 and 90. On the largest sized Pianos there are 88, counting the white and the black keys.

T.—How many vibrations per second has the very lowest tone upon such a Piano?

P.—The very lowest, A, has 27½ vibrations in a second.

T.—Are there any tones in use still lower?

P.—On some very large Church organs there is the deep C below the lowest tone of the Piano; it has but 16 vibrations per second.

T.—Are there tones still lower than this C?

P.—No, that seems to be the very lowest tone perceptible to the human ear; even that is not sufficiently clear in pitch to make it of general practical use. Such tones of extreme depth are generally sounded with other higher tones of the same kind (*consonance*) to give them greater clearness.

T.—How many vibrations per second has the lowest C upon the Piano, that which is immediately above the lowest A?

P.—33!

T.—How many has the highest A upon a 7 octave Piano?

P.—3520!

T.—And how many the C immediately above that, found in Pianos of the largest size?

P.—4224!

T.—How many vibrations per second has the tuner's A (**a**^{1}), at concert pitch, somewhere in the middle region of Piano tones?

P.—437!

LESSON II.

OCTAVES AND TONE SECTIONS.

T.—How are the different musical tones distinguished from each other?

P.—By dividing them first into tone sections, called octaves.

T.—How was it possible to do this?

P.—A great many of the 80 or 90 tones are alike, that is, similar in consonance, although different in pitch.

T.—How many are there among all these musical tones that are essentially different from each other?

P.—When these tones are taken as in relation to each other, according to the laws of Musical Harmony, there are but seven fundamentally different principal tones, each eighth tone being a repetition, upon a higher pitch, of these seven tones. Thus the entire series of musical tones in practical use is divided into sections, called octaves, which, although different in pitch, are similar in consonance.

T.—What is the meaning of octave?

P.—The literal meaning of octave is 8. But it means also a section of 8 tones.

T.—But did you not say the complete tone series is divided into sections of *seven* tones?

P.—Yes, but the eighth tone, while it completes an octave, forms at the same time the beginning of another.

T.—But are there not really twelve distinctly different tones, contained within an octave?

P.—Yes, but seven of these are the principal tones, while the five remaining ones are intermediate tones. They derive their names from the principal tones.

T.—What is the difference in the number of vibrations between any given tone and that of an octave higher?

P.—The higher of the two has exactly double the number of the vibrations of the lower. For instance, the tuner's $\mathbf{a}^1$ has 437 vibrations per second, and the eighth tone above 874.

LESSON III.

NAMES OF TONES.

T.—Have all the different tones names?

P.—Yes, but seven only are required, since there are only seven fundamental or principal tones.

T.—What are these names?

P.—They are the first seven letters of the alphabet, **a b c d e f g.**

T.—In what manner can we obtain a practical illustration of musical tones in connection with their names?

P.—The Keybord of the Piano affords the simplest and best illustration of the entire tone series in practical use, showing the division of octave sections of seven principal tones each, with five intermediate tones.

T.—How many octave sections does the entire keyboard contain?

P.—Generally seven, on the largest Pianos a few tones over.

LESSON IV.

NAMES OF OCTAVES.

T.—Have these different octave sections names?

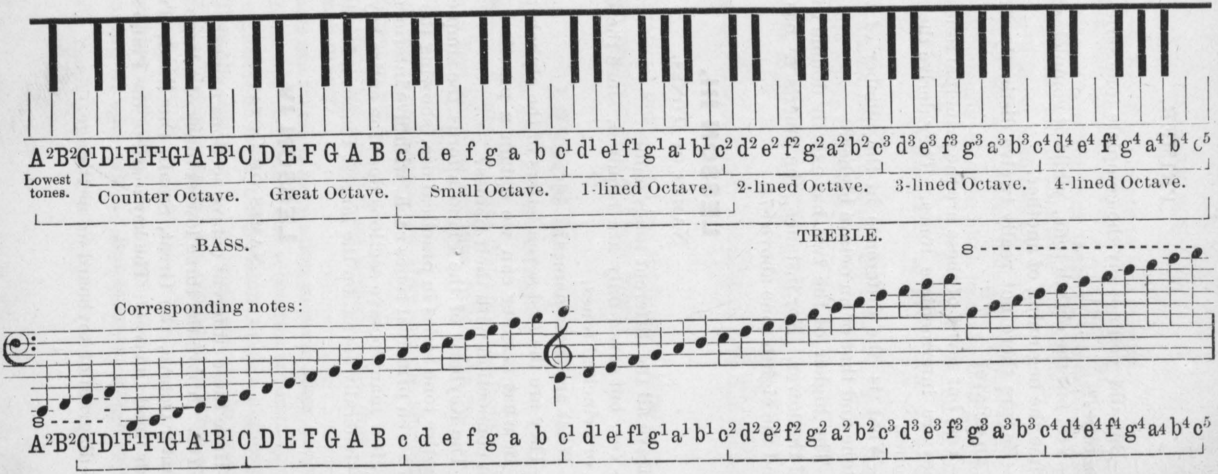
P.—Yes. Above the three lowest tones of a large sized Piano, there are the Counter Octave, the Great, Small, One lined, Two lined, Three lined and Four lined Octaves. The keyboard of the Piano shows this plainly.

(See diagram of keyboard on next page.)

EXAMPLE 1.

KEYBOARD OF THE PIANO,

Illustrating its division by Octaves, with the name of each note and indication of pitch.


$A^2\,B^2\,C^1\,D^1\,E^1\,F^1\,G^1\,A^1\,B^1$ C D E F G A B c d e f g a b $c^1\,d^1\,e^1\,f^1\,g^1\,a^1\,b^1\,c^2\,d^2\,e^2\,f^2\,g^2\,a^2\,b^2\,c^3\,d^3\,e^3\,f^3\,g^3\,a^3\,b^3\,c^4\,d^4\,e^4\,f^4\,g^4\,a^4\,b^4\,c^5$
Lowest tones.
Counter Octave.
Great Octave.
Small Octave.
1-lined Octave.
2-lined Octave.
3-lined Octave.
4-lined Octave.
BASS.
TREBLE.
Corresponding notes:
8
8
$A^2\,B^2\,C^1\,D^1\,E^1\,F^1\,G^1\,A^1\,B^1$ C D E F G A B c d e f g a b $c^1\,d^1\,e^1\,f^1\,g^1\,a^1\,b^1\,c^2\,d^2\,e^2\,f^2\,g^2\,a^2\,b^2\,c^3\,d^3\,e^3\,f^3\,g^3\,a^3\,b^3\,c^4\,d^4\,e^4\,f^4\,g^4\,a4\,b^4\,c^5$

T.—Are the tones contained in these octave sections distinguished in a similar manner?

P.—Yes. The tones in the 1-lined octave, for instance, are called: the 1-lined **c**, 1-lined **d**, and so on.

T.—In what manner can all these distinctions be utilized?

P.—They enable us to describe correctly the height or pitch of any given tone.

T.—May we take any octave, starting from *any* tone, either fundamental or intermediate, and find therein the 7 fundamental tones?

P.—Yes; but the middle octave from c^1 to c^2 is in preference referred to, because it is neither too low nor too high. Furthermore, in speaking of the 7 fundamental tones, we generally think of the tone series c^1 d^1 e^1 f^1 g^1 a^1 b^1, as a good starting point for musical investigation, and call them the *normal* or *standard* fundamental tones.

T.—Then the Piano is so arranged as to show the so-called *normal* fundamental tones in marked prominence, and make other octaves containing the 7 fundamental tones, secondary?

P.—Yes! The Piano is really based upon the key of C (as the principal key), and its keyboard is so arranged, that all other keys (see Keys and Tonalities) are subordinate, although in reality all keys are equally important.

T.—But what is there on the keyboard of the Piano to show that C is its most important key?

P.—The 7 fundamental tones **c d e f g a b** are all represented by white keys, while the black keys, or 5 intermediate keys, are reserved to make up other tonalities.

LESSON V.

THE DIATONIC SCALE.

T.—When the 7 fundamental tones are heard in regular succession from lowest to highest, what do they represent?

P.—A scale.

T.—What kind of a scale?

P.—The Diatonic scale.

T.—What is the meaning of "Diatonic"?

P.—It literally signifies "*through the tones*", meaning the passing in regular order through all the different tones, hence scale.

T.—Are there any other kinds of scales?

P.—Yes, there are others, for instance, the Chromatic scale.

LESSON VI.

THE CHROMATIC SCALE.

T.—What is a Chromatic Scale?

P.—When we add the 5 intermediate keys to the 7 fundamental tones and sound them all in unbroken succession, tone after tone, as we find them on the Piano, we hear a chromatic scale.

T.—In hearing a chromatic scale, the 12 tones contained within an octave seem all of equal importance, why then should some of them be merely intermediate tones?

P.—Any of these chromatic tones may be *fundamental* or *intermediate*, according to the relation they may at the time being hold to other tones.

T.—Explain further!

P.—Any of the 12 tones contained within any octave, in other words, any tone of the entire tone series in practical use, may be taken as the first or foundation tone of a Diatonic Scale. The 7 tones forming this scale are in that case the principal or fundamental tones, while the 5 remaining ones are the intermediate tones, showing that any tone may in turn be principal or intermediate tone.

T.—Does this not indicate that there are as many Diatonic scales as there are different tones in one octave?

P.—Yes, twelve different Diatonic scales, called also keys or tonalities.

T.—What is the meaning of the word "Key" in this particular sense?

P.—Any piece of music is written in one of those keys or tonalities, meaning that it has for its foundation the Diatonic scale built upon some particular tone, for all music is nothing but a repetition of the 7 fundamental tones, together with the 5 intermediate ones, in varied successions and combinations of tones?

LESSON VII.

INTERVAL, WHOLE STEP AND HALF STEP.

T.—What is an interval?

P.—The distance between any two tones of different pitch.

T.—Then there are large and small intervals?

T.—Yes! The interval between the lowest and highest tones of the Piano is very large, while that between the two adjoining tones **c**^{1} and **d**^{1}, for instance, is small.

T.—Is that the smallest interval there is?

P.—No, there is an interval still smaller, that from any white to the next black key.

T.—What is the name of this smallest of all intervals?

P.—It is called a half step, or else a half or semi-tone. All three terms are in general use.

T.—What is the interval between the tones of the chromatic tone series, from the lowest tone on the Piano to the highest, in regular order?

P.—A half step, or semi-tone.

T.—Then a chromatic scale consists of a series of half steps?

P.—Yes!

T.—What intervals are there between the tones of the Diatonic scale?

P.—These vary, consisting of whole and half steps. The whole steps are also called whole tones.

T.—What is a whole step or whole tone?

P.—A whole step consists of 2 half steps or semi-tones. Any two adjoining white keys on the Piano, which have between them an intermediate black key, form the interval of a whole tone or step. Those adjoining white keys however, which have no intermediate black one between them, are half steps, for instance **e** and **f**.

T.—Are there any other two adjoining white keys with no black key between them?

P.—Yes, **b** and **c**.

T.—Are there others besides these?

P.—No, none others.

T.—Are these two half steps contained within an octave?

P.—Yes, within a complete octave, for instance from $\mathbf{c}^1$ to $\mathbf{c}^2$.

T.—Then the other intervals between the remaining tones of the Diatonic scale are whole tones?

P.—Yes, the Diatonic scale contains 5 whole and 2 half steps.

T.—Name the tones of the Diatonic scale of C with their intervals.

P.—**c** to **d**, a whole step; **d** to **e**, whole step; **e** to **f**, half step; **f** to **g**, whole step; **g** to **a**, whole step; **a** to **b**, whole step; **b** to **c** (an octave higher than the **c** started from), a half step.

T.—Is there any way of recording these tones, which vanish so rapidly from our perception?

P.—Yes, they can be and are recorded by means of a complete system of ***Musical Notation.***

LESSON VIII.

MUSICAL NOTATION—LINES, SPACES AND STAFF.

T.—Of what does this system consist?

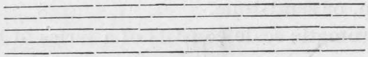
P.—Of lines, clefs, notes, sharps, flats, and numerous other signs.

T.—For what purpose are the lines, and how many of them are there?

P.—There are 5 lines, which are called, as a whole, the *staff*. This staff presents something like a frame, to be dotted all over with *notes* of various kinds, which represent musical tones.

The 5 lines:

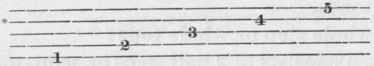
Ex. 2.



T.—In what order are the 5 lines of the staff counted?

P.—The lowest is the 1st line, those above, the 2d, 3d, 4th and 5th line.

Ex. 3.

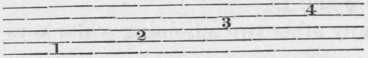


T.—Are the 4 spaces between the 5 lines utilized?

P.—Yes, the spaces are dotted with notes like the lines.

The 4 spaces:

Ex. 4.



LESSON IX.

CLEFS.

T.—What are clefs?

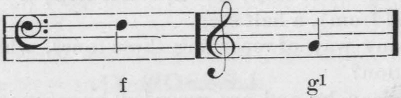
P.—Clefs are signs used for the purpose of establishing the pitch and the names of the notes upon the staff.

T.—How many clefs are there?

P.—Two, the Bass and Treble clefs, also called F and G clefs, from the position they occupy upon the F and G lines. The Treble clef is sometimes called Violin clef.

Bass or F clef. Treble or G clef.

Ex. 5.



T.—What is the meaning of the word "clef?"

P.—In music "clef" means "key" to the disclosure or determination of pitch of musical tones.

T.—What is the difference between the Bass and Treble clefs;

P.—The entire tone series is divided into two large sections or halves, called Bass and Treble; the Bass comprising the lower, the Treble the upper (higher) half. These two sections, low and high, are indicated by the Bass and Treble clefs. (See Ex. 1, Piano keyboard.)

T.—Can no music be noted down without clefs?.

P.—No. The tone series is so extended that we must divide it so as to better distinguish its tones. This is done by Bass and Treble clef in the first instance, and the still smaller sections of octaves, in the second instance.

T.—What positions do these clefs occupy?

P.—They are placed upon the staff at the very beginning of a piece of music, and the notes which follow after the clef are Treble or Bass notes according to the kind of clef that precedes them.

LESSON X.

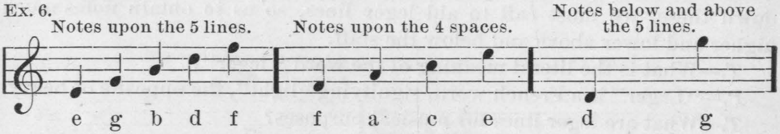
THE TREBLE NOTES UPON THE LINES AND SPACES, also above and below the lines.

T.—Illustrate now by example the notes with their names upon the 5 lines of the staff, and their intervening spaces. Begin with the Treble clef, that is, with the Treble notes.

P.—The Treble notes upon the 5 lines and their spaces correspond to the middle region of the Piano. The dots with their stems which I place upon the lines and spaces, are the *notes.*

TREBLE NOTES.

Ex. 6.



T.—You have stated that these notes are situated somewhere in the middle region of the Piano; can you place them more exactly?

P.—Yes. Taking **d**, the note below the lines, and naming the remaining notes upwards to **g** above the lines, we would have the following series:

d^1, e^1, f^1, g^1, a^1, b^1, c^2, d^2, e^2, f^2, and g^2.

LESSON XI.

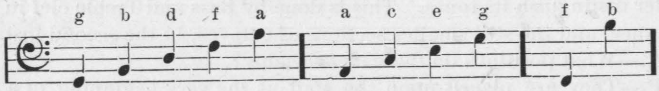
THE BASS NOTES UPON THE LINES AND SPACES, likewise above and below the lines.

T.—Now write an example, showing the Bass notes upon the lines, spaces, below and above the lines, and state the difference between the Bass and Treble notes.

P.—The Bass notes differ from the Treble in two ways: first, they are very much lower in pitch, and secondly, the notes of Bass and Treble representing musical tones of the *same name* occupy different lines and spaces upon the staff.

BASS NOTES.

Ex. 7.



T.—If we were to look for these Bass notes upon the Piano, on what part of the keyboard would we find them?

P.—They are about one octave and three-fourths lower than the Treble notes upon the lines and spaces, that is, not very low in the Bass.

T.—Can you describe with exactness what part of the Bass they occupy?

P.—Yes, they are the tones called G, A, B, c, d, e, f, g, a, b, that is, the great G, great A, great B, and the small c, d, e, f, g, a and b. (See Ex. 1.)

LESSON XII.

Leger Lines.

T.—There must be many more other notes besides those so far given upon the staff?

P.—Yes, there are as many more as there are remaining tones; to note down these, we must call to aid leger lines, so as te obtain notes much higher and lower above and below the staff.

T.—What is the literal meaning of the word "leger"?

P.—"Leger" is a French word, signifying "light", the opposite of heavy.

T.—What are leger lines for musical purposes?

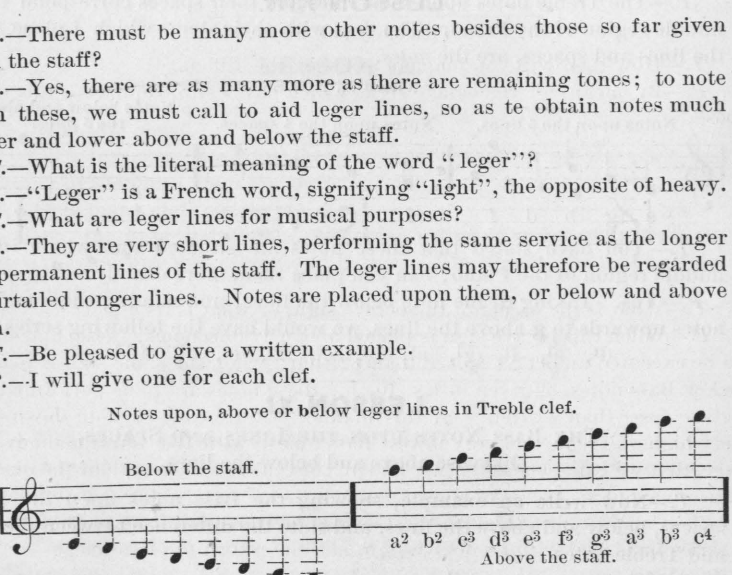
P.—They are very short lines, performing the same service as the longer and permanent lines of the staff. The leger lines may therefore be regarded as curtailed longer lines. Notes are placed upon them, or below and above them.

T.—Be pleased to give a written example.

P.—I will give one for each clef.

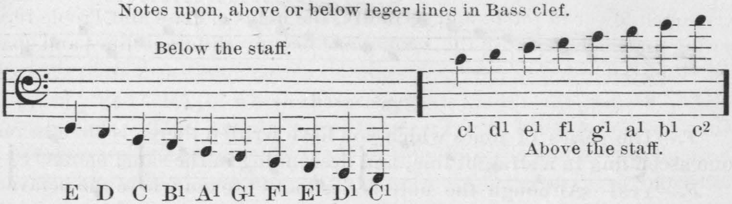
Notes upon, above or below leger lines in Treble clef.

Ex. 8.



Notes upon, above or below leger lines in Bass clef.

Ex. 9.


Below the staff.
E D C B^1 A^1 G^1 F^1 E^1 D^1 C^1
c^1 d^1 e^1 f^1 g^1 a^1 b^1 c^2
Above the staff.

T.—By means of these leger lines and their notes, you have written down nearly all the notes in practical use?

P.—Very nearly. High in the Treble there are about a dozen more, and low in the Bass three.

T.—How can you write these?

P.—To write them by means of leger lines would be confusing to the eye: they hardly could be read!

T.—Is that not the case even with some of those just given as examples?

P.—Yes, they are quite difficult to read.

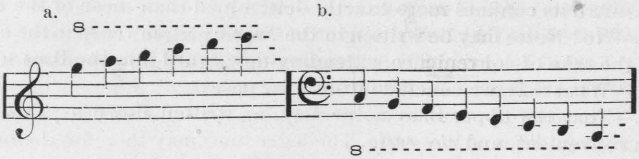
LESSON XIII.

THE OCTAVE SIGN.

T.—How then will you manage to lessen the difficulty?

P.—By means of the octave sign, which has been invented for this purpose.

Ex. 10.



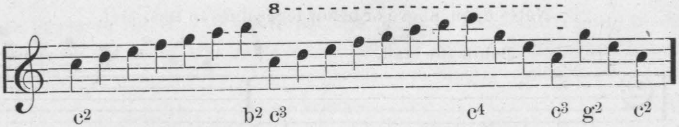
T.—What is the object of the octave sign, or what is its effect?

P.—When this octave sign is placed above Treble notes, these notes are to be executed an octave *higher* than written; when the same sign is placed below Bass notes, as given in Ex. 10, b., these notes are to be performed an octave *lower* than written. In this manner we are able to note down the very highest Treble and very lowest Bass tones, with the additional advantage that we can, whenever we find it convenient, make use of the octave signs to avoid an excess of leger lines.

T.—Can you give an example showing the transition from plain notes to a series furnished with an octave sign, and the return to plain ones?

P.—Yes!

Ex. 11.



T.—The series of tones which you have written there, is then in reality one ascending in a straight line, and descending in the same manner?

P.—Yes! Although the note series looks broken where the octave sign begins and ends, yet it is straight as shown by the numbered letters, written under some of the notes.

T.—But why have you not given an example in Bass notes?

P.—The octave sign occurs comparatively rarely in the Bass, and then mostly for descending tone series.

LESSON XIV.

Extension of Bass and Treble.

T.—How far does the Bass extend?

P.—From the lowest tone to the one-lined **c** (c^1), or a little higher.

T.—Then its extent is not definite?

P.—No! It may, when convenient for musical notation, extend upward into the Treble section.

T.—How far does the Treble extend?

P.—From the one-lined **c** (c^1) upward to the very highest tone in use.

T.—Are its confines more exactly determined than those of the Bass?

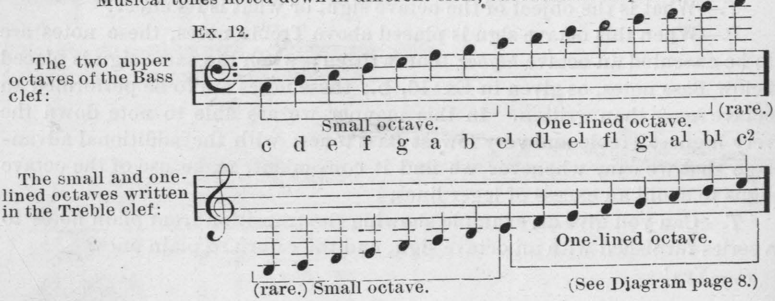
P.—No! Notes may be written in the Treble clef, lower than the one-lined **c** for the sake of convenience, extending downward into the Bass section.

T.—What may we conclude from this?

P.—That the upper Bass notes may be written down as Treble notes, when convenient, and *vice versa*.

Musical tones noted down in different clefs, but identical in pitch.

Ex. 12.


The two upper octaves of the Bass clef:
Small octave.
One-lined octave.
(rare.)
c d e f g a b c^1 d^1 e^1 f^1 g^1 a^1 b^1 c^2
The small and one-lined octaves written in the Treble clef:
One-lined octave.
(rare.) Small octave.

(See Diagram page 8.)

LESSON XV.

THE C CLEFS.

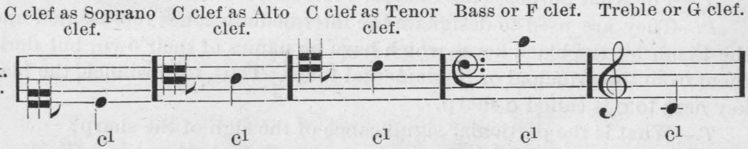
T.—Are there other clefs beside the Bass and Treble clefs?

P.—Yes, the C clef, of which there are three kinds: the Soprano, Alto and Tenor clefs. They are no longer in general use, because modern musical notation justly and properly tends to simplification and the elimination of superfluous signs of notation, with the object of better universalizing the art of music.

T.—Give an example of notes in these clefs for completeness' sake.

P.—The notes given in the following example are all of the pitch of **c**^{1}. I have added the Bass and Treble **c**^{s} to make the example clearer.

Ex. 13.



T.—Have the C clefs advantages over the Treble clefs?

P.—No! The advantage is in every respect on the side of the Treble clef, hence the C clefs are very properly falling into disuse.

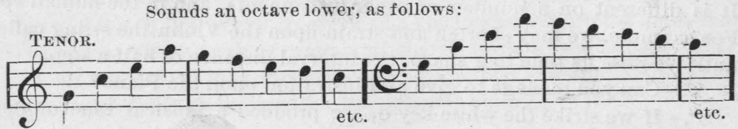
T.—But does it not require a great many leger lines to write a Tenor part either in the Bass or Treble clef?

P.—Yes, if a Tenor part were written according to its true pitch; but it is not, for a Tenor part is written an octave higher than it really sounds, and the Treble clef is used for that purpose.

T.—give an example illustrating how a Tenor part is written, and how it really sounds.

P.—Here it is!

Ex. 14.



T.—Has there not been adopted a new Tenor clef, making it unnecessary to write a Tenor part an octave higher than it really sounds?

P.—Yes, but it is only used here in the United States, and even here not as yet very generally.

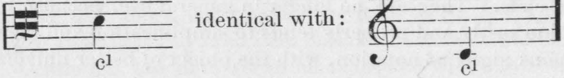
T.—Is it a useful clef?

P.—Yes! At least there is no objection to it other than that it increases the number of signs.

T.—Give an example of it!

P.—Its notes are identical in name and position upon the staff with those of the Treble clef, but their pitch is an octave lower, that is, the true pitch in which the Tenor sings.

Ex. 15.



LESSON XVI.

Sharps and Flats.

T.—For what purposes are Sharps, Flats and Naturals used?

P.—They are used to designate the intermediate tones represented upon the Piano by the black keys, which have no names of their own, but derive them from the principal or fundamental tones. Thus, for instance, the black key next to **c** is called **c** sharp.

T.—What is the particular significance of the sign of the sharp?

P.—The sharp is used to raise any given tone by half a step.

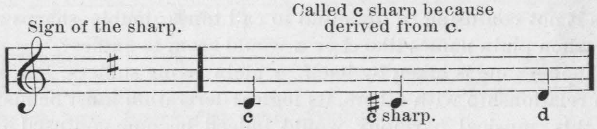
T.—Are you not using a rather inappropriate expression when you say the **c** is "raised" to **c** sharp? Are not both separate and equally important tones in music, and that a "raising" from one to the other should be out of the question?

P.—Taken by themselves, all tones are equally important, but in music tones are not taken by themselves, they are only taken in relation to each other. I have stated before that any tone may at different times be a principal or an intermediate one. The sharp really RAISES any tone by half a step. The Piano does not furnish a complete illustration of this, because its tones are rigidly fixed, and no sliding can take place from one to another. It is different on a number of other instruments, and in the human voice. For example, we may shorten and strain upon the Violin the string called **g** until we *raise* its tone to **g** sharp, the interval distance of half a step.

T.—Can you manage to give an illustration upon the Piano?

P.—If we strike the white key **c**, we produce a musical tone of determined pitch. If, at some other time, we strike the white key **d**, we also produce a tone of determined pitch. If we strike **c** and **d** in succession, we produce not merely two separate tones of determined pitch, but we strike them *in relation with each other*. If now before striking **d** after **c**, we sound the intermediate black key, we bring **c** and **d** in more intimate relation with each other, because the ear then perceives more distinctly the distance which separates the two principal tones **c** and **d**, by halving that distance. Thus, in a musical sense, considering tones in their *relation to each other*, we *raise* the **c** to **c** sharp so as to attain **d.** In the same sense the **c** sharp has been *derived* from the principal tone **c.**

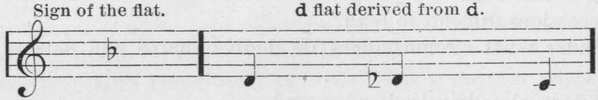
Ex. 16.



T.—What is a flat?

P.—The flat is a sign used to lower any tone by half a step. In the example which follows, **d** is lowered by half a step (semi-tone) by means of a flat, so as to attain **c**; **d** flat is *derived* from **d.**

Ex. 17.



T.—What is the difference between a sharp and flat?

P.—The sharp has an upward, the flat a downward tendency or inclination.

T.—Can you give a practical illustration of this difference of inclination or tendency?

P.—Taking the tone **c** and placing before it a sharp, **c** becomes **c** sharp with a tendency to move upward to **d**, the next higher tone. Taking **d** and placing before it a flat, **d** becomes **d** flat with a downward inclination to **c.** This difference of tendency in the sharp and flat must be taken into account to write music correctly.

T.—Must this upward and downward tendency of the sharp and flat be adhered to in *all* cases?

P.—No! There are considerations which make deviations necessary. As a general thing, it is well not to overload a key in sharps with too many flats, and *vice versa*. Then again, *fundamental* sharps or flats (see Lesson XXIV) should be maintained throughout the key or tonality (Lesson XXIV), and not be unnecessarily exchanged for the opposite sign.

LESSON XVII.

DOUBLE SHARPS AND DOUBLE FLATS.

T.—What is a double sharp?

P.—A double sharp is used to raise a tone twice, that is, by two half steps. **C** raised by a double sharp is equivalent to **d**, but it is called **c** double sharp.

T.—What is a double flat?

P.—A double flat lowers a tone by two half steps. **B** lowerd by a double flat becomes the equivalent of **a**, but is called **b** double flat.

T.—Is it not confusing to the mind to call tones double sharps and double flats, when plain names like **d** or **a** would seem to suffice?

P.—When a tone is taken by itself, a plain name suffices, but when it is placed in relationship with others, its logical derivation must be maintained. Without this, musical harmony would indeed become confused and unintelligible.

T.—Do musical writers always adhere to these rules?

P.—No! they often disregard them; but such disregard generally denotes lack of thorough knowledge, and results in incoherence and illogical chord successions difficult to read.

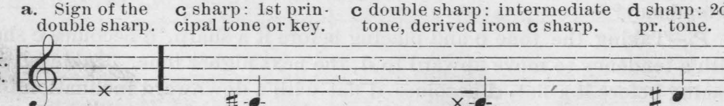
T.—Under what circumstances do double sharps and flats principally occur?

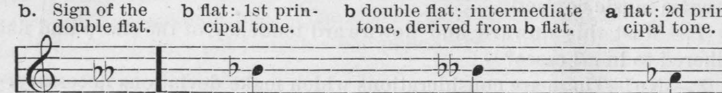
P.—In keys already raised or lowered.

T.—Explain further and give a practical illustration.

P.—If **c** sharp and **d** sharp are the *principal* tones, the intermediate tone will not be **d**, but **c** double sharp.

Ex. 18.


a. Sign of the double sharp.
c sharp: 1st principal tone or key.
c double sharp: intermediate tone, derived irom c sharp.
d sharp: 2d pr. tone.


b. Sign of the double flat.
b flat: 1st principal tone.
b double flat: intermediate tone, derived from b flat.
a flat: 2d principal tone.

LESSON XVIII.

WHITE KEYS AS PRINCIPAL AND DERIVED TONES.

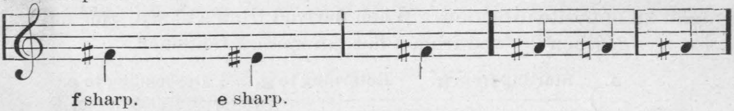
T.—May white keys be sharps or flats?

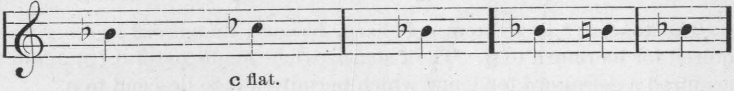
P.—Yes! The tone **f** and **c** are often called **e** sharp and **b** sharp, or the tones **b** and **e**, **c** flat and **f** flat.

T.—Under what circumstances!

P.—When, for instance, **f** sharp as a principal tone, is followed by another **f** sharp, likewise a principal tone the intermediate tone, as in the following example, is **e** sharp, not **f**.

Ex. 19.





From similar reasons **c** is often called **b** sharp and **e**, **f** flat.

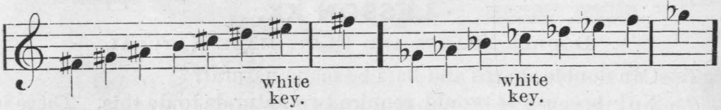
T.—Are the other white keys subject to change of name?

P.—Yes! But only by *double* sharps or flats.

T.—Are there keys (tonalities) or scales which contain white keys as sharps or flats?

P.—Yes! **f** sharp for instance, or **g** flat.

Ex. 20.



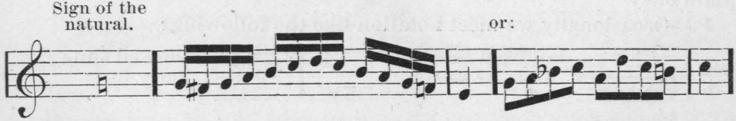
LESSON XIX.

THE NATURAL.

T.—What is a natural?

P.—The natural is a sign used to bring back to its first condition a tone that had been made sharp or flat. Thus if **f** sharp, for example, were required to be used immediately or soon after as plain **f**, it would be necessary to place before it the sign of the natural, and the plain **f** would then be called **f** natural.

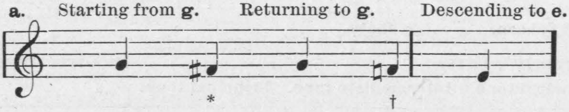
Ex. 21.



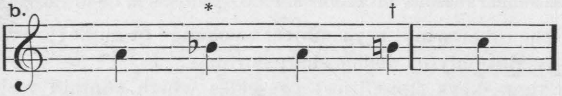
T.—Has the "natural" a particular tendency or inclination like the sharp and flat?

P.—As the sign of the natural is brought into relation with both the signs of the sharp and flat, it follows that it partakes of the tendencies of both, only in an opposite direction. When derived from a sharp, the natural has a *downward*, when derived from a flat, an *upward* tendency.

Ex. 22.



The tone at * is written as **f** sharp, because an *upward tendency* was required for its return to **g**. The **f** sharp, when made natural (♮) again at †, acquired a *downward* tendency which permitted it to descend to **e**.



The tone at * is written as **b** flat, because a *downward tendency* was required for its return to **a**. The **b** flat, when made natural at †, acquired an *upward* tendency which permitted it to ascend to **c**.

LESSON XX.

Double Sharps and Flats made Natural.

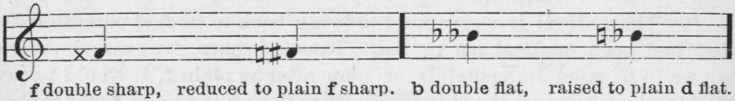
T.—Can double sharps and flats be made natural?

P.—No! because it would require two naturals to do this. There is no double natural used in musical notation.

T.—Can they be affected at all by the sign of the natural?

P.—Yes! *Double* sharps and flats can be made *plain* sharps and flats, and for this purpose the sign of the natural is used.

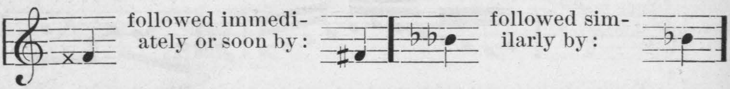
Ex. 23.



T.—Is there any other method of changing a double sharp or flat to a plain one?

P.—Occasionally we meet notation like the following:

Ex. 24.



This manner of writing is not strictly correct, but may pass by virtue of its brevity.

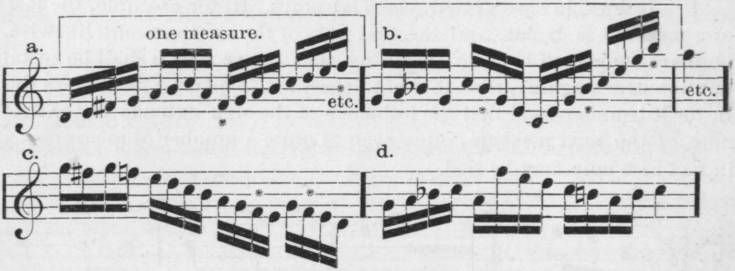
LESSON XXI.

EXTENT OF INFLUENCE OF THE SHARP, FLAT, NATURAL, DOUBLE SHARP AND DOUBLE FLAT.

T.—Do these signs exert an influence further than upon the note before which either of them may be placed?

P.—Yes, the influence of these signs extends to the end of the measure (see Measure) in which they may occur, but only upon the same staff. Thus if **f** is sharped at the beginning or some other part of a measure, all other f^s, if any, coming *after* **f** sharp, become likewise **f** sharps, even those that are one or more octaves higher or lower.

Ex. 25.

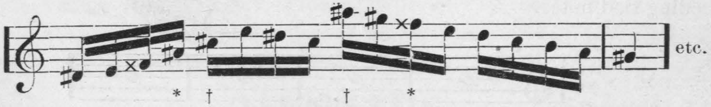


At **c** the **f** sharp is revoked immediately after by the sign of the natural, making the remaining $\mathbf{f}^s$ of the same measure likewise naturals upon any part of the staff. At **d** the flat (♭) is revoked later in the measure. Double sharps and flats are subject to the same rules.

T.—Supposing a measure to contain a very large number of sharps, flats, naturals and other signs, would it not be a difficult matter, especially in *sight reading* (playing a piece for the first time) to remember all the notes sharped or flatted early in the measure?

P.—In cases where it seems desirable to assist the memory, by repeating the sharp or other sign, it is done, especially when notes, previously raised or lowered, occur in lower or higher octaves.

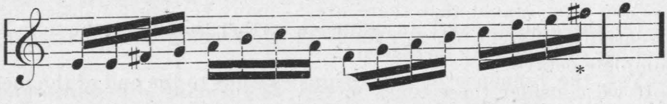
Ex. 26.



T.—Would it not be well to make it a rule that these signs should be repeated in all cases where notes previously sharped or flatted occur in higher or lower octaves?

P.—No, that would be a cumbersome method! In Ex. 25, for instance, it is easy to remember the sharp at the beginning of the measure, and it would be superfluous to write it as follows:

Ex. 27.

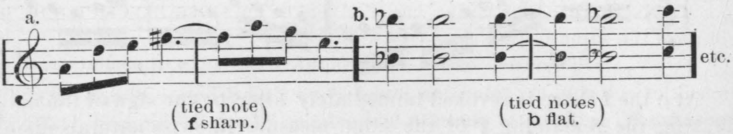


LESSON XXII.

T.—Does the influence of these signs never extend beyond a measure?

P.—It does, in case of tied (see Tie) notes. If, for example, the last note of a measure is **b** flat, and the first note of the next measure likewise, and both are connected by a tie (meaning that the second **b** shall be sustained, but not struck again), then it is not necessary to place a flat before the tied **b**, for it is understood that the influence of the sign extends to the first tied note of the next measure, often even of quite a number of measures, as far in fact as a note may be tied.

Ex. 28.



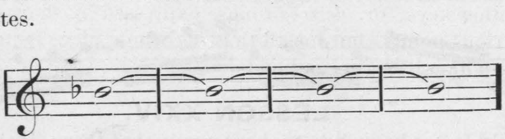
T.—I notice in Ex. 28, b., that you have made use of flats immediately after the tied notes.

P.—Yes, the octave which follows the tied octave **b** flat happens to be likewise **b** flat, therefore it is necessary to provide it with flats, since the influence of the flats in the preceding measure does not extend beyond the tied notes.

P.—Give an example of several measures with tied notes.

P.—Yes! And it is to be understood that the first flat affects all the succeeding tied notes.

Ex. 29.



T.—Then all the **b**s given in this example are flats?

P.—Yes, so long as the ties continue, the note is the same.

LESSON XXIII.

KEYS OR TONALITIES.

T.—You have stated that there are as many keys or tonalities as there are essentially different tones, namely 12, they being encompassed by any one complete octave?

P.—If we consider these tones merely as so many different sounds not placed in relation with each other, then it is true that there are twelve tonalities or keys; but if we take into account the fact that the intermediate tones (black keys of the Piano) may each be derived from a *fundamental tone* as a sharp as well as a flat, it immediately follows that there are more than twelve tonalities, although not more than twelve that are *essentially different* in *pitch.*

T.—In what do these tonalities differ, if they do not differ in pitch?

P.—They differ in name and tendency?

T.—How in name?

P.—Both **c** sharp and **d** flat, for instance, may be the foundation tones of two different tonalities, although the same in pitch.

T.—Is there a particular name given to keys that have different names but are the same in pitch!

P.—Yes! They are called enharmonic keys. In the same manner we speak of enharmonic tones, such as **f** sharp and **g** flat, and when a tone appears, say as **f** sharp, and immediately after as **g** flat, that is called an *enharmonic change.*

T.—Can you give an explanation of the meaning of key or tonality?

P.—Any piece of music must be composed and written in a particular key or tonality, both terms meaning the same thing. Any such particular key is based upon the seven fundamental tones, which form, so to say, the groundwork of the entire piece. Thus, for instance, any piece of music written in the key of **c**, is based upon the seven fundamental tones, **c d e f g a b**, represented by the white keys of the Piano. The piece may, in the course of its progress, deviate from the original key of **c**, and temporarily introduce other keys, or, *derived* tones, expressed by sharps and flats, may occur at various points, but for all that the whole piece is principally in the key of **c**, in which it begins and ends.

LESSON XXIV.

KEYS OR TONALITIES CONTINUED.

T.—Name some other key besides that of **c**!

P.—G!

T.—What are the fundamental tones of the key of G?

P.—**g a b c d e f♯.**

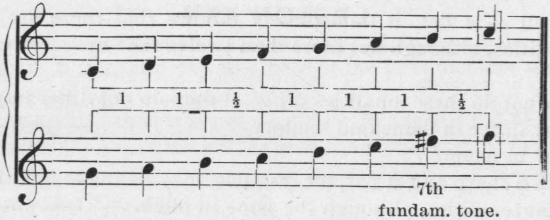
T.—Why **f** sharp?

P.—Because the fundamental tones of all other keys must be the same in their intervals from tone to tone, as the *Normal* or *Standard* fundamental tones **c d e f g a b**!

T.—Prove that the seven fundamental tones of the keys of C and G are the same in their intervals from tone to tone.

P.—That is easily done by placing them together for comparison:

Ex. 30.



T.—When a piece is written in the key of G, is the sharp of the 7th fundamental tone **f** placed before each **f** that may occur in that piece?

P.—No! When a fundamental tone is a sharp or a flat, the sign of such sharp or flat is placed at the beginning of the piece, partly for the purpose of economizing the number of signs to be written, and partly also that the performer may at once recognize the ruling key of the piece.

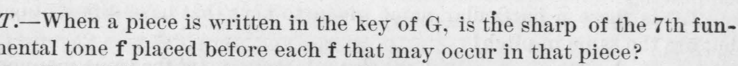
T.—Explain more clearly how signs are economized in that manner.

P.—Taking for instance the key of G, the fundamental sharp **f**, placed at the beginning of the piece, converts every **f** throughout the piece (unless a total change of key occur, with change of signature) into a sharp, without further use of the sign of the sharp.

T.—Now write down the seven fundamental tones of the key of G, according to the rules of notation.

P.—Willingly!

Ex. 31.



T.—Why have you written the fundamental tones both ascending and descending?

P.—Because I desired to give a practical example of the manner in which signs are economized: The **f** at * is a sharp without the use of a special sign.

T.—Has the sharp thus placed prominently at the beginning of a piece, or series of tones, a particular name?

P.—Yes, the sharps or flats thus placed at the beginning, are called (for there may be more than one) the "*Signature*" of the key.

T.—What name then is reserved for the sharps, flats and other similar signs, whose influence does not exceed the length of a measure?

P.—These special sharps, flats, naturals, double sharps and double flats abound in all musical pieces, and are called "Accidentals". They were at length explained in Lessons XVI and XVII.

LESSON XXV.

KEYS OR TONALITIES CONTINUED.

T.—Let us now return to a former question not fully explained as yet. I desired that you should tell me how many different Tonalities there are, including enharmonic keys, those, in other words, which are the same in pitch' but different in name.

P.—Their number is considerable, but the greater portion of them are of no practical importance. I might state that the seven fundamental tones appear in the first place as naturals, then they may be converted, as the case may be, into sharps, flats, double sharps and double flats. Each of these may serve as the foundation tone of a key or tonality. Again, the five intermediate tones may appear as sharps or flats, each furnishing a tonality. Most of these, however, are merely *theoretical keys;* in music we could not make practical use of them.

T.—Why not?

P.—Because the number of sharps or flats required for some of these keys is so great, that they could only be deciphered with the greatest difficulty.

T.—How many keys then are there in practical use?

P.—Twelve, or at the very most one or two more.

T.—Explain further.

P.—Modern notation has about limited the number of sharps to be used as the signature of a key, to six: six sharps or six flats.

T.—Was this limit exceeded formerly?

P.—Yes, to some extent. In older compositions we meet not infrequently with a signature of seven sharps.

T.—Never at the present day?

P.—Rarely! For the same key may be represented by five flats, which lessens the number of signs.

T.—Would it not be well to limit the number of keys to exactly twelve?

P.—No! F sharp and G flat, enharmonically the same, have each respectively six sharps and six flats, affording an even chance for their choice by composers. There are therefore 13 keys in practical use; but when asked, how many tonalities there are, the correct answer would be: Twelve of different pitch.

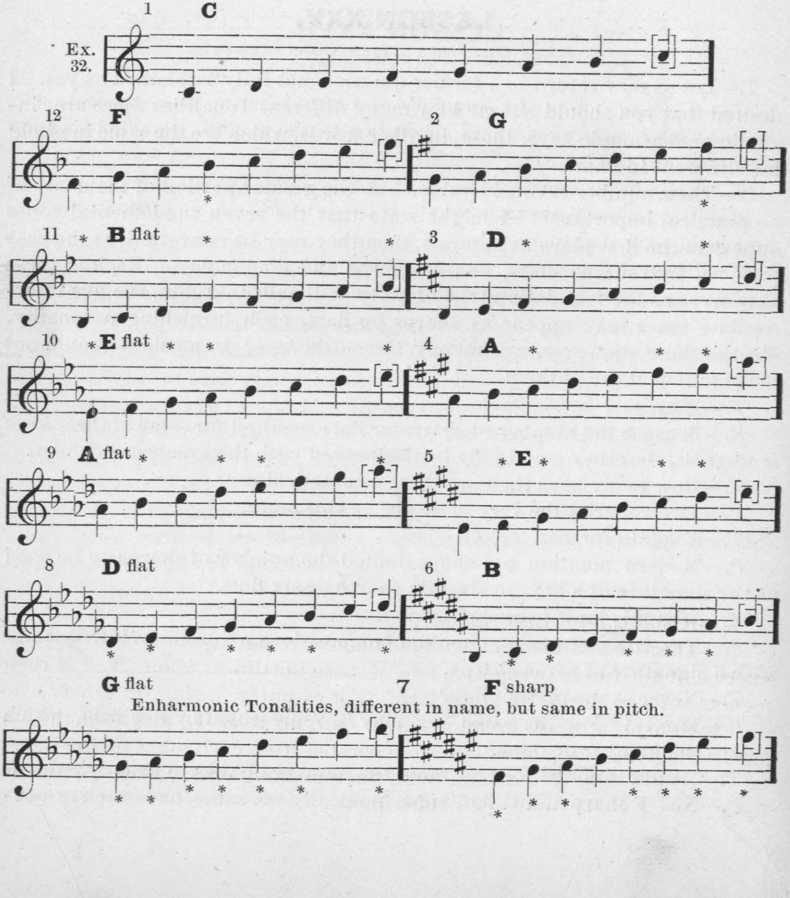
LESSON XXVI.

KEYS OR TONALITIES CONTINUED.

T.—Now be pleased to illustrate upon paper these different tonalities.

P.—I will give the seven fundamental tones (with octave of each) of the twelve keys, counting the enharmonic tonalities of F sharp and G flat as one.

Ex. 32.



T.—Please explain your illustration!

P.—1. The notes marked with a star represent tones made sharp or flat according to the signature at the beginning of each key. 2. Each key is represented by its seven fundamental tones, called the Diatonic scale. 4. The sharps and flats, forming the signature, are placed upon the lines and spaces of the tones which they affect. Thus the signatures are as follows:

G--f♯. D--f♯ & c♯. A--f♯ c♯ g♯. E--f♯ c♯ g♯ d♯. B--f♯ c♯ g♯ d♯ a♯.
Fsharp--f♯ c♯ g♯ d♯ a♯ e♯. Gflat--b♭ e♭ a♭ d♭ g♭ c♭. Dflat--b♭ e♭ a♭ d♭ g♭.
A flat--b♭ e♭ a♭ d♭. E flat--b♭ e♭ a♭. B flat--b♭ e♭. F--b♭.

LESSON XXVII.

CIRCLE OF FIFTHS.

T.—You have adopted a singular order of numbering these tonalities!

P.—I have numbered them according to the relation they hold among each other, as to distance.

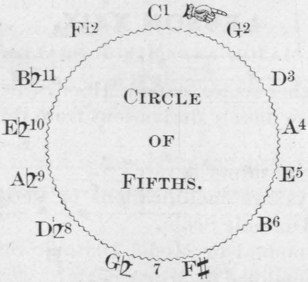
T.—Explain further!

P.—The twelve keys form what is called the "Circle of Fifths", starting from, and returning to, C.

T.—Illustrate!

P.—The names of the foundation tones will suffice for this purpose.

Ex. 33.



T.—Explain your illustration.

P.—There is a distance of five fundamental tones, called collectively the interval of a Fifth, between each two of these tonalities, when taken in their regular order from the 1st to the 12th. For example, taking the key of C to start with in an upward direction, and counting it as 1, g will be the 5th tone. Thus these two tonalities are separated from each other by the interval of a Fifth. It is the same with the remaining ones. (See Complete Table, after § 20, of Goldbeck's Harmony.)

LESSON XXVIII.

The Scale.

T.—You have stated that the seven fundamental tones form the Diatonic Scale, and that the latter is the foundation of our present system of music. How many Diatonic Scales are there?

P.—As many as there are keys and tonalities, that is, 12 of essential difference of pitch.

T.—Then the terms Scale and Key (in the sense of tonality) are synonymous expressions?

P.—Yes, in a great measure, or at least in as much as the Scale furnishes the principal material of the tonality, namely the 7 fundamental tones, from which all possible tone combinations are derived.

T.—Do these scales differ among each other?

P.—Only in so far as they are of different pitch. Any tone may be taken as the first tone of a scale; but the intervals from tone to tone are exactly the same in all scales. In other words, there is only one scale, all others being exact reproductions of the normal or model scale.

T.—Has this model scale a name?

P.—It may be averred that the scale of C has been taken, by general consent, as the model scale.

LESSON XXIX.

Major and Minor Scales.

T.—Are there not other scales, called Minor Scales?

P.—Yes, but they are merely derivations from the fundamental Diatonic Scales.

T.—Is the same true of minor keys?

P.—Yes, minor keys are modifications or derivations from tonalities based upon the model Diatonic Scale.

T.—Has the Fundamental or Model Diatonic Scale as special name to distinguish it from its modified or Minor Scale?

P.—Yes, it is called the Major Scale.

T.—Explain the exact meaning of the terms Major and Minor!

P.—In Musical Science their exclusive sense is "large" and "small", referring to the distance between certain of the 7 fundamental tones.

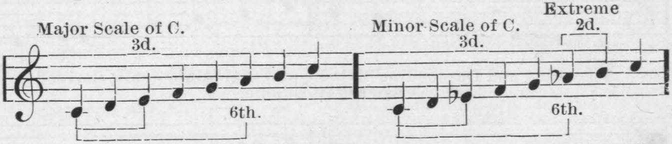
T.—Which are these tones?

P.—The 3d and 6th tones, counting upward from the lowest or first.

T.—Explain further!

P.—The distances and intervals between these tones are *larger* by half a step in the fundamental Diatonic or *Major* Scale, than those between the corresponding tones of the Minor Scale.

Ex. 34.



T.—Is that all that constitutes the difference between a major and minor scale?

P.—Yes!

LESSON XXX.

HARMONIC AND MELODIC OR VOCAL MINOR SCALES.

T.—Are there not several minor scales?

P.—Yes, there are two besides the one I have illustrated.

T.—What is the name of that one?

P.—It is called the Fundamental or Harmonic Minor Scale, the one founded in science and the nature of the Major and Minor modes. (See Major and Minor mode, Goldbeck's Harmony.)

T.—What are the names of the other two minor scales?

P.—The Melodic or Vocal, and the Mixed.

T.—Are they not founded upon science?

P.—Less upon science than upon art, that is, the theory of the beautiful in one sense, and practical utility in another.

T.—What is the Melodic or Vocal Minor Scale?

P.—It is a modification of the Harmonic Minor Scale for melodious and vocal purposes.

T.—Is the Harmonic minor scale not fit for these purposes?

P.—Not fully. It contains an interval lacking melodious fluency and difficult of vocal execution.

T.—Which is this interval?

P.—The one between **a** flat and **b**, called an extreme second.

T.—The model diatonic major scale contains no such interval?

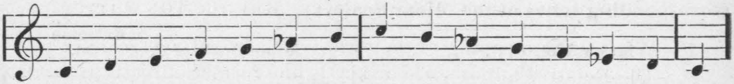
P.—No, the intervals of the major scale are all either whole or half steps, but not like the extreme second, a step and a half.

T.—What has been done to remove this extreme second, so difficult of vocal execution, without destroying the character of the minor scale?

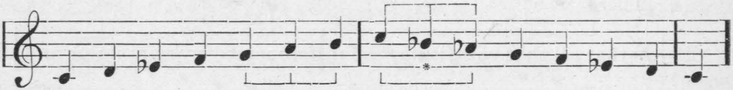
P.—The 6th tone **a** has been left unaltered in the upward course of the scale, and both the 7th and 6th have been lowered by half a step in its downward course.

a. Ascending and Descending Harmonic Minor Scale.

Ex. 35.



Ascending and Descending Melodic or Vocal Minor Scale, derived from the Harmonic.
b.



T.—How could the **b** flat be introduced into the descending vocal minor scale?

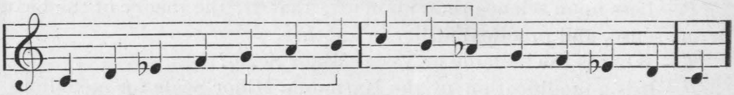
P.—The minor scale of **c** is obviously related to the major scale of **c**, but also to the major scale of **e** flat, which contains three flats, **b** fllat, **e** flat, **a** flat. The 3d flat, **a** flat, which is characteristic of the key of E flat, is also contained in the Harmonic minor scale of **c**, therefore it was easy to incorporate **b** flat into the latter. (See Ex. 35, b. *.)

T.—What is the Mixed Minor Scale?

P.—The mixed minor scale is in some respects an arbitrary one, and has obtained no scientific recognition. Upward it is like the Vocal and downward like the Harmonic minor scale.

Mixed Minor Scale.

Ex. 36.

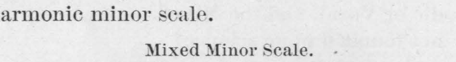


The principal object of altering the harmonic minor scale for melodious and vocal purposes having been to remove the extreme second, it seems inconsistent to retain the same in the downward course of the vocal minor scale.

T.—Can there be an excuse for so inconsistent a proceeding?

P.—There is some excuse! The ascending extreme second is more difficult of vocal execution than the descending one, the latter being (to use an Italian expression in this connection) more sympathetic (più simpatico).

Ex. 37.



T.—How many minor scales are there, in the sense of tonality?

P.—As many minor as there are major scales, namely twelve.

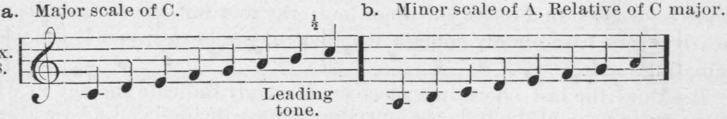
LESSON XXXI.

The Relative Minor Scale, Key or Tonality.

T.—What is the meaning of the term "Relative Minor Scale"?

P.—The Relative minor scale or key is one formed directly from the fundamental Diatonic or Major Scale.

Ex. 38.


a. Major scale of C. **b.** Minor scale of A, Relative of C major.

T.—In what respects do these two scales differ, and in what are they alike?

P.—They are alike in as much as they have the same tones, and they are unlike in their beginning with different tones.

T.—At what distance or interval are they situated from each other in the scale of tones?

P.—At the distance of a minor third, that is, the minor scale of A is a minor third (equivalent to three successive half steps) below that of C major. The same is true relatively of all other major and minor scales! (See The Major and Minor Scale, § 179, page 146, Goldbeck's Harmony.)

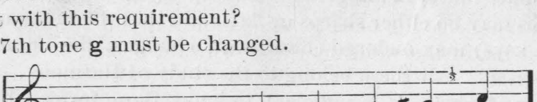
T.—Is the tone series as you have given it at Ex. 38, b., the identical minor scale in our present system of music?

P.—No, not quite! The modern system of music requires the interval, formed by the 7th and 8th tones, to be a half step, in other words, it must end with a leading tone. (See Leading Tone, § 25, Goldbeck's Harmony.)

T.—What alteration must the minor scale at Ex. 38, b., undergo to make it consistent with this requirement?

P.—The 7th tone **g** must be changed.

Ex. 39.



T.—What signature have the minor scales or keys, to indicate their tonality?

P.—All minor keys have the signature of their relative majors. A minor has no signature, because its relative, C major, has none. E minor has that of G major: one sharp; D minor that of F major: one flat, and so forth. The minor mode is therefore, in one sense, subordinate to the major mode, and the key note, or *Tonic* (first or foundation tone of any major or minor scale), of the relative minor is always a minor third below the Tonic of its relative major.

T.—Is it not difficult to determine the true key or tonality in which a piece of music is written, the signatures of the relative major and minor being the same?

P.—There is generally no very great difficulty in determining whether a piece be written in a major or minor key; the first few measures indicate in nearly every case plainly enough whether the major or minor is the predominating mode.

T.—Does the last chord in a piece conclusively indicate the key in which it is written?

P.—No! The rules of musical form permit that a piece may commence in a minor key and end in the major of the same key-note, or else in the relative major. Or, in another case, it may open in A minor, and end in A major, or C major. But it may of course also end in the *minor key* in which it is written.

LESSON XXXII.

INTERVALS.

T.—You have stated that there are large and small Intervals. What may we conclude from this?

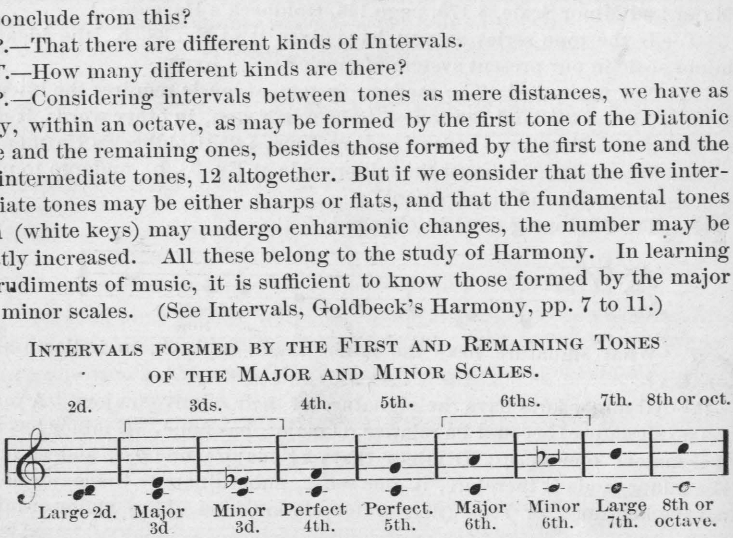
P.—That there are different kinds of Intervals.

T.—How many different kinds are there?

P.—Considering intervals between tones as mere distances, we have as many, within an octave, as may be formed by the first tone of the Diatonic scale and the remaining ones, besides those formed by the first tone and the five intermediate tones, 12 altogether. But if we consider that the five intermediate tones may be either sharps or flats, and that the fundamental tones even (white keys) may undergo enharmonic changes, the number may be greatly increased. All these belong to the study of Harmony. In learning the rudiments of music, it is sufficient to know those formed by the major and minor scales. (See Intervals, Goldbeck's Harmony, pp. 7 to 11.)

INTERVALS FORMED BY THE FIRST AND REMAINING TONES OF THE MAJOR AND MINOR SCALES.

Ex. 40



LESSON XXXIII.

INTERVALS CONTINUED.

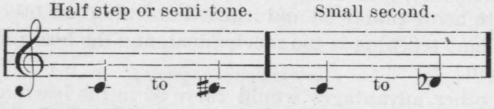
T.—I notice in your example that you have given special names to these intervals, such as major and minor 3ds etc., etc.

P.—These names refer to the character of consonance or dissonance of these intervals; their more extensive study belongs to the science of Harmony. (See Concord and Discord, Goldbeck's Harmony.)

T.—I do not see that you have given an example of the smallest interval, that of a semi-tone.

P.—It does not occur among the intervals formed by the first and remaining tones of the scale. The smallest interval may be either a mere semitone or half step, or else a small second.

Ex. 41.



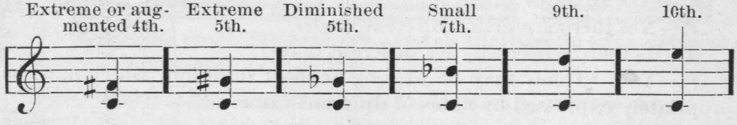
T.—Is there any real difference between these two intervals?

P.—There is, in as much as a *Second* can only be formed by the 1st and 2d tones, or any two adjoining tones of *different name.* From **c** to **d** is therefore a small second, while **c** sharp taken in relation to **c**, is merely **c** *raised* by a semi-tone.

T.—Is it desirable for those learning the rudiments of music to know something about other intervals, besides those that occur in the major and minor scales, and the small second which you have just described?

P.—Yes, those of the extreme 4th, extreme and diminished 5th, small 7th, 9th and 10th might be of practical use.

Ex. 42.



T.—Can you elucidate the 9th and 10th, and say how they are of practical use?

P.—The 9th and 10th are merely wider 2ds and 3ds, although the character of the 9th differs essentially from that of the 2d. (See "Ninth", Goldbeck's Harmony.) In Pianoforte music they frequently occur, and it is well to be able to recognize them and give them their proper names.

LESSON XXXIV.

INTERVALS CONTINUED.

T.—You have mentioned a number of intervals as to character of consonance or dissonance; name, for completeness' sake, how many different kinds of intervals there are in this sense.

P.—Five! namely Major, Minor, Perfect, Diminished and Augmented intervals.

T.—Is it not very difficult to become familiar with all the different intervals that may occur in the different tonalities?

P.—Yes, but not as difficult as it would seem, for all tonalities are alike, and so must consequently be their intervals.

T.—Would it not be advisable that the teacher should, even in the ordinary Piano lesson, rehearse with the pupil the intervals of each scale (tonality) as they are being practiced and learned one after the other?

P.—Yes, Piano teaching is too mechanical, and the best players are often grossly ignorant!

T.—What other advantages would there be in the learning of the intervals of the major and minor scales, besides contributing to remove this species of discreditable ignorance?

P.—It would assist to improve the reading of the Piano player, but especially would it prepare the scholar for the study of Harmony, which cannot be understood unless the knowledge of the intervals is firmly engraven upon the memory.

LESSON XXXV.

VALUE OF NOTES AND RESTS.

NOTES.

T.—Are all notes alike?

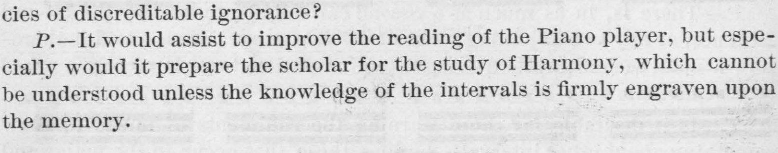
P.—No, there are many different kinds.

T.—Is there a necessity for different notes?

P.—Yes! Tones may be of long or short duration, which must be appropriately expressed by notes of different value.

NOTES OF DIFFERENT VALUE.

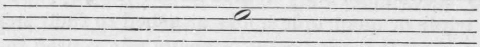
Ex. 43.



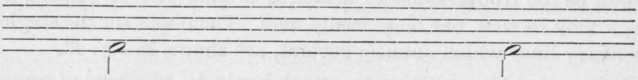
(Ex. 43 continued.)

COMPARATIVE VALUE.

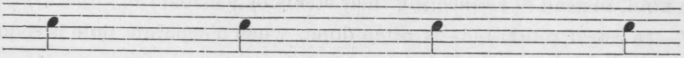
Whole Note.



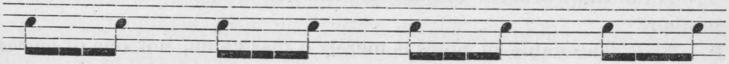
Half Notes.



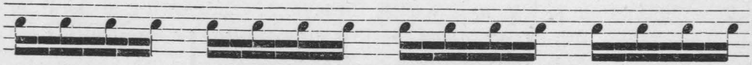
Quarter Notes.



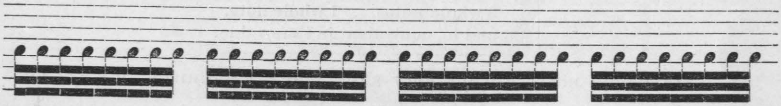
Eighth Notes.



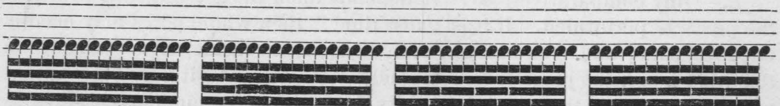
Sixteenth Notes.



Thirty-second Notes.



Sixty-fourth Notes.



T.—What does the preceding example, giving the comparative value of notes, plainly demonstrate?

P.—It shows that a whole note is equal in duration to two half notes, or to 4 quarter, 8 eighth, 16 sixteenth, 32 thirty-second, or 64 sixty-fourth notes; a half note is equal to 2 quarter notes, or to 4 eighth, 8 sixteenth, 16 thirty-second, or 32 sixty-fourth notes; a quarter note is equal to 2 eighth notes, or to 4 sixteenth, 8 thirty-second, or 16 sixty-fourth notes; an eighth notes is equal to 2 sixteenth notes, or 4 thirty-second, or 8 sixty-fourth notes; a sixteenth note is equal to 2 thirty-second, or 4 sixty-fourth notes; a thirty-second is equal to 2 sixty-fourth notes.

T.—Explain your illustration somewhat further!

P.—Notes are made of heads, stems, hooks, and lines or strokes. Eighth, sixteenth, thirty-second and sixty-fourth notes, when appearing singly, have single, double, triple or quadruple hooks attached to their stems; when appearing in numbers of the same value, a heavy line is used to connect them, as it would be too troublesome to attach a broken one to each, besides it would not look so well, nor be so easily read. The hooks for the single notes, and the heavy lines which connect several, are shown in Ex. 43.

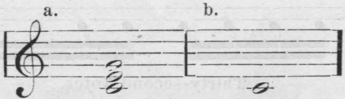
T.—Is it preferable at times to attach hooks to numbers of notes of the same kind, instead of connecting their stems by a stroke?

P.—In vocal music this is often done, when a separate note is required for each syllable.

T.—Is the value of notes increased, when there are several of them above each other?

P.—No! The value of notes is merely a *time* value, not one of *numbers* of notes played at the same time.

Ex. 44.



3 whole notes. 1 whole note.

a. and b., equivalent in time value.

T.—Are whole notes always very slow and sixty-fourths always very fast?

P.—Only comparatively so! It depends upon the general time in which the piece is performed. If it is "fast time" then whole notes may occupy but little time, and even succeed each other with considerable speed; if, on the other hand, the piece is in extremely "slow time", it may happen that notes of such little time-length as sixty-fourths may be moderately slow.

LESSON XXXVI.

Dotted Notes.

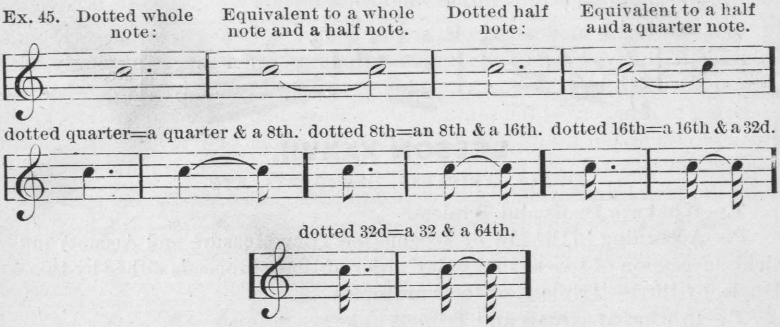
T.—What are dotted notes?

P.—That depends whether the dot is placed *over* or on the right side of a note.

T.—I refer to the dot placed at the right side of any note.

P.—Such doth increases the time-length of any note by one-half of its own value.

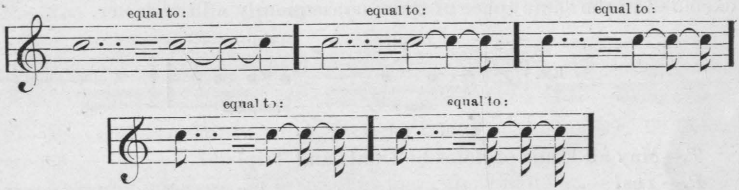
Ex. 45.


Dotted whole note:
Equivalent to a whole note and a half note.
Dotted half note:
Equivalent to a half and a quarter note.
dotted quarter=a quarter & a 8th.
dotted 8th=an 8th & a 16th.
dotted 16th=a 16th & a 32d.
dotted 32d=a 32 & a 64th.

T.—What is the meaning of two dots placed after a note?

P.—The two dots prolong the time-length of a note by one half and one quarter of its own value.

Ex. 46.



T.—What is the meaning of the curve by which you have connected a number of the notes occurring in the last two examples?

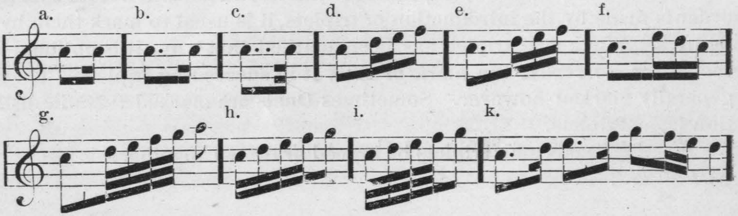
P.—They are *ties*, meaning that the note should continue to sound without being struck again. It was merely to show the exact amount of time value, by which the note had been increased through the addition of the dot or dots.

T.—Does it occur that notes of different kinds are connected by strokes?

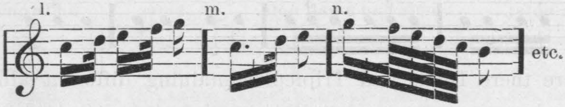
P.—Yes. The following is an illustration:

Notes of different value drawn together for convenience of writing.

Ex. 47.



(Ex. 47 continued.)



LESSON XXXVII.

DUALS, TRIPLETS, SEXTOLETS, ETC.

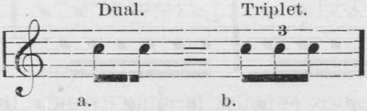
T.—What are Duals and Triplets?

P.—According to the law of Accent (see Time Measure and Accent) musical succession of tones, in regular order of time, proceeds either by two—Duals, by three—Triplets, or their multiples.

T.—In what are Duals and Triplets alike?

P.—In duration (length, value) of time, when written in notes of the same kind. If the notes at **a** in the following example, forming a Dual, are played in the time of a second, the notes at **b**, forming a Triplet, are to be executed in the same space of time, consequently a little faster.

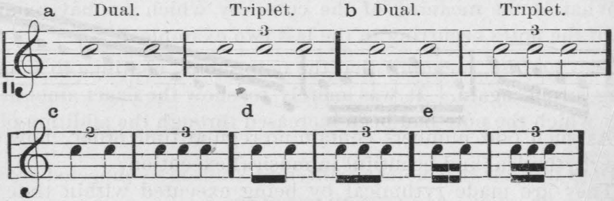
Ex. 48.



T.—May all kinds of notes be Duals and Triplets?

P.—Yes!

Ex. 49.



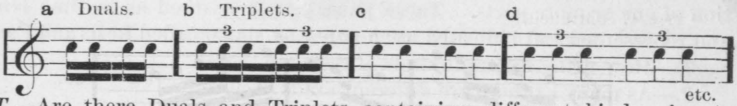
T.—Why do you write the number "3" over the Triplets?

P.—If tones have been progressing in duals, and deviation from this time-order is made by the introduction of triplets, it is usual to mark them by the figure 3. When one triplet has been marked that way, it is optional with the writer, to repeat the mark or omit it in succeeding triplets. They are generally marked however. Sometimes Duals are marked "2" in distinction from Triplets.

T.—May Duals and Triplets be braced or drawn together?

P.—Yes!

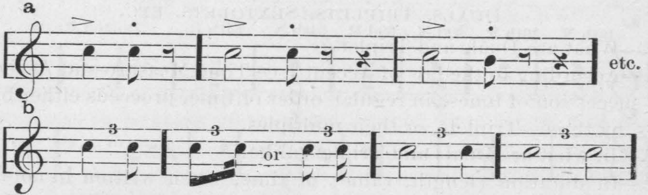
Ex. 50.



T.—Are there Duals and Triplets containing different kinds of note values?

P.—Yes!

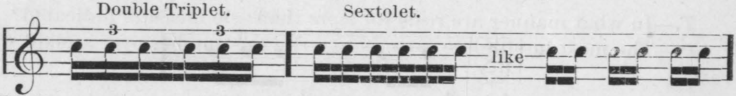
Ex. 51.



T.—Are not the braced Triplets at Ex. 50, b, Sextolets rather than two Triplets?

P.—No! Sextolets do not move by twice three, but by thrice two.

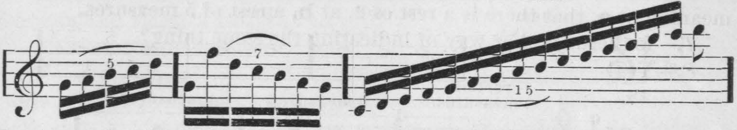
Ex. 52.



T.—May odd numbers of notes, forming irregular time order, be braced together?

P.—Yes, any number! It is usual to mark their number.

Ex. 53.



T.—As such odd numbers contain no regular time order, how can they be made rhythmical and beautiful in musical execution?

P.—They are made rythmical by being executed within time lengths, equal to succeeding time lengths, and they are made beautiful by being performed *evenly*.

LESSON XXXVIII.

Rests and Pauses.

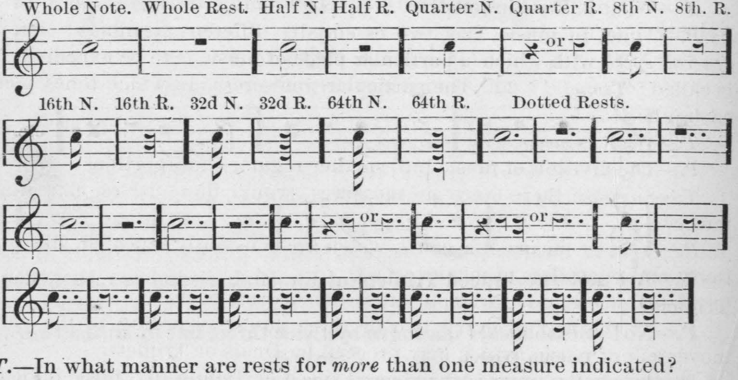
T.—What are Rests and Pauses?

P.—In music several parts (tone series) generally proceed together, forming, what is called, Melody and Harmony. During this progress many pauses, more or less short, occur, either of total silence, or partial interruption of one or more parts. These pauses are measured as to time length, and represented and indicated upon paper by signs, called Rests and Pauses.

T.—How many different kinds of rests are there?

P.—As many as there are different kinds of notes.

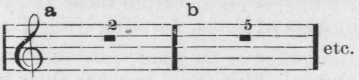
Ex. 54.



T.—In what manner are rests for *more* than one measure indicated?

P.—The most intelligible way is to write the number over a plain whole rest,

Ex. 55.

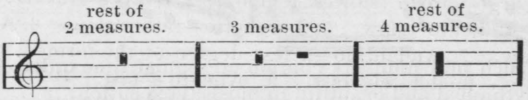


meaning at **a**, that there is a rest of 2, at **b**, a rest of 5 measures.

T.—Is there another way of indicating the same thing?

P.—Yes!

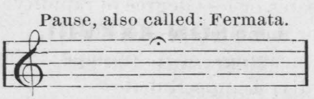
Ex. 56.



T.—You have given no example of Pauses?

P.—" Pause " is a general term for rests, but it has the special meaning of an indefinite rest.

Ex. 57.



The Fermata is a longer stop, supposed to be indefinite. An indefinite stop however is ineffective. It is better to give it rhythmical time-length, either a half or whole measure, or possibly two or even more entire measures.

LESSON XXXIX.

TIME, MEASURE, ACCENT.

TIME.

T.—What is *Time* in music?

P.—Time, in music, has two essentially different meanings: 1st, The *general speed* with which a particular piece of music is to be executed; this is called "*Tempo.*" 2d, The particular time-*order*, in which tones succeed each other.

T.—What is *measure?*

P.—The division of music into smaller regular time-portions.

T.—Suppose there were no measures, would there be regular time in music?

P.—Yes, by means of accents, which are constantly repeated, like pulsations, and regardless of measure.

T.—How often do these pulsation-like accents occur?

P.—At the first of every two or three notes, according to the general movement of music, which may proceed by Duals or Triplets.

T.—In what manner is the general speed or Tempo of a piece indicated?

P.—By terms comprizing every degree of rapidity, from slowest to fastest. An appropriate one is chosen from these and placed at the beginning of the piece over the first staff.

T.- From what language or languages are those terms taken.

P.—Most of them from the Italian, some from the French, and some from the German and English languages.

T.—Name the most important ones!

P.—1. Largo—broad (slowest tempo). 2. Grave—gravely. 3. Adagio—very slow. 4. Lento—slow. 5. Larghetto—rather slow. 6. Andante—moderately slow. 7. Andantino—a less degree of the former. 8. Moderato or Allegretto—moderately fast. 9. Allegro—fast. 10. Vivace—lively. 11. Presto—quick. 12. Prestissimo—as fast as possible.

T.—What signify "più" and "meno"?

P.—Più—more; meno—less. They are used with most of the terms named to indicate a greater or less degree of rapidity, such as: più Allegro—faster; meno Allegro, or meno mosso—less fast.

T.—What are the meanings of 1) Tempo Primo, 2) Tempo Giusto, 3) L'Istesso Tempo, and 4) Tempo Rubato?

P.—1) First time, 2) Strict time, 3) The same time, 4) Uncertain, shaded and varied time.

T.—Are these Tempo indications, from slow to fast and their intermediate rates of speed, sufficient to avoid error or misconception as to the author's intention of time movement?

P.—Not always! They often give rise to dispute, and not unfrequently professional musicians even disagree!

T.—What remedy is there for this?

P.—A time indicator, called the Metronome (invented by Mælzel), consisting of a pendulum set in motion by clock work, serves to measure time with exactitude. The writer refers to this instrument, at the beginning of a piece, by numbers as related to notes of certain value, and in that manner expresses the time-speed intended for a composition.

Ex. 58. 𝅗𝅥 = 80. (slow Tempo.)

The Metronome is adjusted to 80 by the performer, and the pendulum strikes at the rate of speed at which half notes shall be executed.

T.—Is there any other way, less cumbersome, to ascertain the composer's intention as to time?

P.—Yes, it would be all-sufficient if composers were to give the ordinary Tempo indications as relating, not to general speed or an entire measure, but more especially to a note of certain value.

T.—Explain more clearly!

P.—A piece indicated in the following manner, could leave no doubt as to the composer's intention: ♩ = Andante, or ♩ = Allegro, instead of plain Andante and plain Allegro.

LESSON XL.

TIME, MEASURE, ACCENT CONTINUED.

MEASURE.

T.—Say again what is measure?

P.—The Division of Music into equal time-portions.

T.—Are these time-portions easily discernable as measures?

P.—Yes, to the eye, upon paper, not so easily to the ear alone!

T.—What, then, is the special object of measure in music?

P.—To make the meaning of the author clear, that those who study and read the music may fully understand it.

T.—In what manner are measures visible upon paper?

P.—By vertical bar lines, which divide the music into measures.

T.—How much of music does a measure contain?

P.—That depends upon several things, but especially upon the character of the time in which a piece moves.

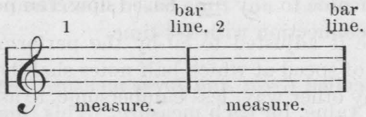
T.—Does each measure, in the same piece, contain an equal number of notes?

P.—No, but the sum total of notes, which each measure contains, must be the same in *value*!

T.—Explain more clearly!

P.—One measure may contain one note only—a whole note. The next, two—2 half notes. Another—a quarter note, 3 eighths, 2 sixteenths, and 8 thirty-seconds, but all three measures, when summed up, represent the exact value of a whole note. The measures, therefore, differ very considerably as to the number of notes to be performed, and as to the effect they produce upon the ear and mind, but the time-length of each measure is the same.

Ex 59.



T.—Does measure 1 differ from measure 2?

P.—No! The space between the clef and the bar line, if it is the first measure of a piece, may be an *entire* measure, or part of one, called *initial* measure. In this case 1 and 2 are full measures.

T.—Is there any other name for measure?

P.—Yes, one not strictly correct! Many call measures *bars*, for brevity's sake.

LESSON XLI.

TIME, MEASURE, ACCENT CONTINUED.

TIME-ORDER.

T.—Your illustration of measures contains no indication as to the amount of value in notes to be allotted to each measure.

P.—The particular time which decides that, was not given.

T.—Are there different kinds of time, and if so, from what cause?

P.—There are many different kinds, resulting from the two fundamental movements, called the Dual and the Triplet.

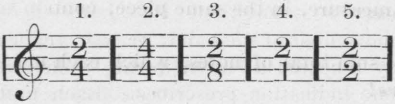
T.—Explain further!

P.—There are two principal time-orders, the first is based upon the number **2**, the second upon the number **3**. They are called 1) Two part or Common time, 2) Three part or Triple time.

T.—Does each Time-Order comprise different kinds?

P.—Yes! Two Part Time order, or Common Time, comprises the following:

Ex. 60.



1. **2-4** time, meaning 1) that each measure of a piece in 2-4 time shall contain the value (in any kind of notes) of two (2) quarters (4); 2) that the upper numerical shall indicate the *number*, and the lower the *kind* of notes, which are to form the basis of the general speed or Tempo.
2. **4-4** time, allotting to each measure four quarter notes, or their equivalent in other kinds of notes. This kind of time is also indicated by the capital letter C, meaning Common time. The term "common time", although applicable to any time based upon the number 2, is more specially used in connection with 4-4 time.
3. **2-8** time.
4. **2-1** time, also called *Great Alla Breve* measure. It comprises two whole notes, or their value, for each measure. This time is nearly obsolete.
5. **2-2**, *Small Alla Breve*, or simply Alla Breve measure. It requires two half notos, or their value, for each measure. This time is generally indicated by the capital letter C, *vertically crossed*, instead of 2-2.

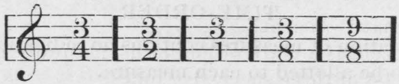
LESSON XLII.

TIME-ORDER CONTINUED.

T.—What different kinds of time are comprised in *Three part Time order?*

P.—The following:

Ex. 61.



1. **3-4** time—3 quarters or their value in each measure.
2. **3-2** " —3 half notes or their value in each measure.
3. **3-1** " —3 whole " " " " " "
4. **3-8** " —3 eighth " " " " " "
5. **9-8** " —9 " " " " " " " "

T.—Is there any other *Time-Order* besides these two?

P.—Yes! There is a combination of both, which may be called Combined or *Complex Time-Order*.

T.—Explain it!

P.—Each measure contains two different movements, one proceeding by *three*, and the other by *two*. Thus in 6-8 time there are twice three beats.

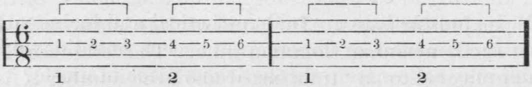
T.—What is a beat?

P.—A beat is a movement of the hand, or *stick* (called *baton* or conductor's staff), generally repeated as often during each measure as the upper numerical of the time indication prescribes. Each unit of this numerical may also, in a general way, be called a beat.

T.—Proceed now with your explanation of Complex time.

P.—In 6-8 time one of the two movements which proceed together is based upon the number 2, the other upon 3, as follows:

Ex. 62.



T.—Name the different kinds of time classed under the *Complex Time-order!*

P.—1. **6-8** time, requiring 6 eighths, or their value, in each measure.

2. **12-8** " " 12 " " " " " "

This time is based upon Common time, each quarter consisting of 3 eighths, i. e. a Triplet.

3. **6-4** time, similar to 6-8 time.

T.—At what part of a piece do we find its time-indication?

P.—At the beginning, immediately after Clef and Signature (if any) upon the staff.

LESSON XLIII.

TIME, MEASURE, ACCENT CONTINUED.

ACCENT.

T.—Say again what is Accent?

P.—In music, Accent is a mark or emphasis, naturally falling upon every 1st of two, or every 1st of three successive tones.

T.—What is the result of such accent?

P.—Rhythmical motion!

T.—But is it not unbeautiful to have a tone or chord series proceed constantly by accents?

P.—No! These accents are instinctively felt, but they are not distinctly perceived.

T.—Are there several kinds of accent?

P.—There are two—the fundamental and expressive accent.

T.—What is the fundamental accent?

P.—The unperceived or unconscious accent, which forms the basis of all rhythmical motion, and is constant and uninterrupted in recurrence.

T.—And the expressive accent?

P.—A perceptible accent of more or less force or intensity, used to give more emphatic expression to certain tones. It occurs at irregular times.

T.—Is the expressive exclusively used for emphasis or expression?

P.—No, it essentially assists in confirming the fundamental accent by occasionally recalling the latter to the mind of the listener in a more forcible manner. It also helps to make clear more complicated rhythms.

T.—Can you briefly define the two-fold function of the expressive accent?

P.—Yes! Its foundations are both æsthetical and technical!

T.—Is the fundamental or unperceived accent noted down, so that the musical reader may follow it up throughout a piece of music?

P.—No! it is never marked.

T.—Is the expressive accent marked?

P.—Yes, invariably!

LESSON XLIV.

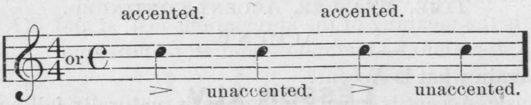
TIME, MEASURE AND ACCENT CONCLUDED.

MEASURE AND ACCENT.

T.—Give a few representative examples of the fundamental accent as related to measure!

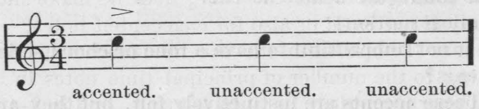
P.—In Common time (4-4), with four principal time-notes in each measure, there are two accented and two unaccented notes:

Ex. 63.



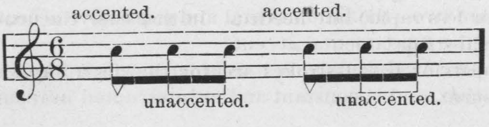
In 3-4 time (Triple time), each measure contains one accented and two unaccented notes:

Ex. 64.



In 6-8 time (Complex time), there are two accented and twice two unaccented notes:

Ex. 65.

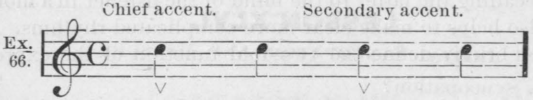


I have in these examples marked the fundamental accent, for the sake of illustration: otherwise it is never marked.

T.—Is there a distinction between accents in measures containing more than one?

P.—Yes! The first is called the *chief*, the 2d the *secondary* accent.

Ex. 66.



T.—When a measure contains many notes of inferior value, is the number of accents increased in proportion to the number of notes?

P.—Yes! Each first of two (when Dual), or three notes, (when Triplet), has the fundamental accent, no matter how small in value or rapid these notes may be. The general basis of the measure, however, is not affected by this, chief and secondary accent remain, and continue to exert their influence upon general motion and speed.

T.—In what manner is the expressive accent marked on paper?

P.—By the signs: >; ∧; –; –̣; or the indications: *msf*, *sf*, and *sff*.

T.—Where are signs and indications placed, and what relative degree of emphasis do they express?

P.—They are placed *over*, sometimes *under* the note to be emphasized. > or ∧ means: well marked; –: gently marked; –̣: gently marked, with slight raising of the hand. *msf* expresses a medium degree, *sf* a greater, and *sff* the greatest degree of sudden force.

T.—What is the meaning of the abreviations msf, sf and sff?

P.—Mezzo sforzando,—sforzando,—and sforzandissimo.

LESSON XLV.

Time beating.

T.—When a conductor beats the time, does he make motions with his hand or staff only for *accented* or also for *un*accented notes?

P.—In ordinary Tempo both the accented and unaccented notes are beaten, according to the number of principal time notes in a measure, indicated by the upper numerical, as: 4 in 4-4 time, or 3 in 3-4 time. In very slow Tempo these principal beats are frequently even subdivided by intermediate beats. In very fast Tempo it often occurs that only *downward strokes* (more or less rapid) are needed. In that case the unaccented notes receive no special stroke.

T.—What beats or baton-strokes are for the accented and unaccented parts of a measure?

P.—The downward beat is for the chief accent, the upward beat for an unaccented note; that to the right, in common time, is for the secondary accent; but in triple time the beat to the right (sometimes made to the left, although with disadvantage, because not so visible to larger numbers of performers) is for an unaccented part.

LESSON XLVI.

INITIAL SYNCOPATION AND MEASURE.

T.—What is Syncopation?

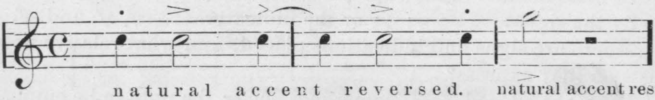
P.—Syncopation is the shifting of the accent to the *unaccented* note, while the *accented* note is at the same time deprived of its natural accent.

T.—Is it the fundamental or the expressive accent which produces syncopation.

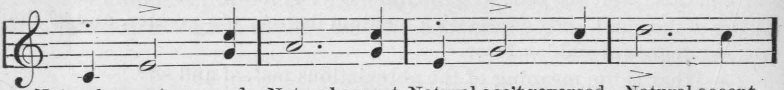
P.—The fundamental accent, with the difference that it is sensibly marked in syncopation, for otherwise the mind of the hearer could not accept the reversal of the natural accent.

a. SYNCOPATION.

Ex. 67.



b. LEONORE, NO. III.—Beethoven.


Natural accent reversed, or syncopation.
Natural accent resumed.
Natural acc't reversed, or syncopation.
Natural accent reversed.

At b. the syncopations are interpersed with measures containing the natural accent.

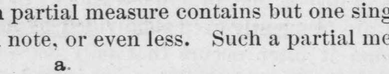
T.—May Syncopations be introduced at considerable length, and with any kind of notes, such as have small value?

P.—Both questions I can answer with Yes!

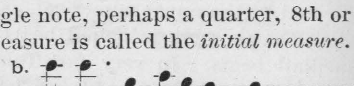
T.—What is the Initial Measure?

P.—It often happens that the first measure is but a part of one, or that such partial measure contains but one single note, perhaps a quarter, 8th or 16th note, or even less. Such a partial measure is called the *initial measure*.

a.



b.



T.—At **a**. you have completed the initial measure at the close. Is that obligatory?

P.—No! The initial measure may be entirely independent, offering merely one or more introductory notes to the full measure following, very much like the *article* and *noun*. But it may happen that the piece, or part of a piece, is to be repeated from the beginning; in that case it becomes necessary that *one full* measure be made up by the initial and closing partial measures, so as not to disturb the smoothness of the general rhythm.

LESSON XLVII.

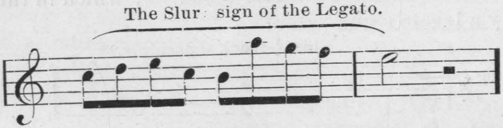
DIFFERENT SIGNS.

LEGATO.

T.—Give an illustration of such signs, used in musical pieces, as have so far been left unexplained.

P.—There are, first, the Legato, Staccato, and Staccato-Legato signs. The latter is called, in instrumental music, the "Portamento".

Ex. 69.

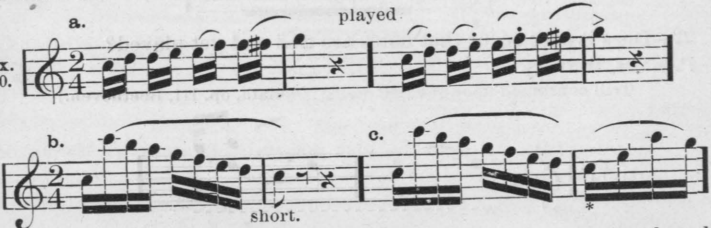


The Slur may be placed upon any number of notes, meaning that they shall be executed, as far as the slur extends, in the Legato style, that is, in a smooth connected manner.

T.—How is the last note under a slur to be executed?

P.—Either as a short or slightly marked note, so that the hearer may understand that the slur has come to a close.

Ex. 70.

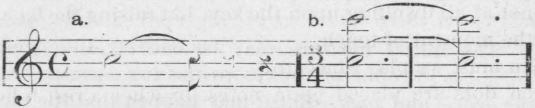


At **c**. the note marked * must not be played short, because another slur is immediately following the first, meaning that the smoothness of execution is not to be interrupted.

T.—Are there not slurs having a different meaning?

P.—Yes, there is one called the *tie !*

Ex. 71.



The Tie is used to prolong a note. The 8th note **c** at Ex. 71, a., is not sounded a second time, it is merely continued, and is called a "tied note". At b. the octave **c** is tied over into the next measure. To make a tie possible, the value of the first note must extend to the beginning of the next; if there is a rest between, there can be no tie.

T.—Can two notes of different name be tied?

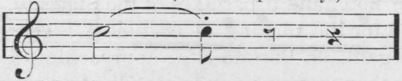
P.—No, unless they be enharmonic tones, i. e. such as are different in name, but of the same pitch.

T.—May two notes of the same name be tied, and the second be sounded again?

P.—No, not strictly speaking! The following looks like a tie, but is not; the dot over the second note counteracts the tie, which in this and similar cases is merely a legato sign.

slur. (struck separately.)

Ex. 72.

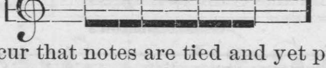


T.—When several identical notes are supplied with both slur and dots, are they tied, or must they be repeated.

P.—They must be repeated.

Repeated in Portamento style.

Ex. 73.

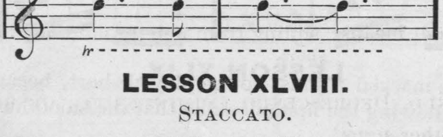


T.—Does it ever occur that notes are tied and yet played?

P.—Yes, in trills.

Trill continued upon the tied note. (Sonata, op. 111, Beethoven.)

Ex. 74.



LESSON XLVIII.

STACCATO.

T.—What is the meaning of "Staccato"?

P.—The literal meaning is "pointed" or "short".

T.—How is a short note played upon the Piano?

P.—By not at all dwelling upon the key, but raising the hand rapidly, yet quietly, at the moment of touch.

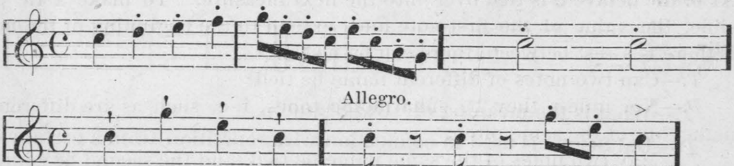
T.—When must we play Staccato?

P.—When dots are placed upon notes, or when a rest follows a note of small value.

Staccato, or short in execution, demanding a raising of the hand, however slight, at each note.

Less short, because the notes are of considerable value.

Ex. 75.



Medium Staccato, because of the length of the dots.

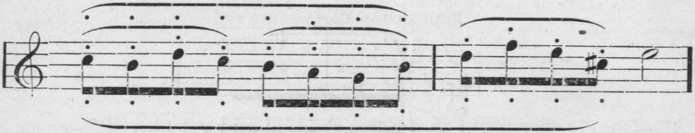
Short, on account of the rests and inferior value of the notes.

T.—What means *Staccato-Legato*, or *Portamento*?

P.—This style of touch partakes equally of the Staccato and Legato. It is Legato, in as much as the finger must dwell upon the key the full length of the value of the note, and it partakes of the Staccato, in as much as the hand must be raised for the playing of each note. There are several shadings of Staccato-Legato, or Portamento, approaching more and more the Staccato style; but they receive no special indication upon paper; they are left to the discretion of skillful performers.

PORTAMENTO.

Ex. 76.



T.—Why have you written three different slurs with dots?

P.—All three ways are equally correct and mean the same thing, namely, an uninterrupted "Portamento". They are optional with the writer.

T.—Does the term "Portamento" signify the same thing in vocal execution?

P.—No! There it means: sliding from note to note, near or distant.

LESSON XLIX.

CRESCENDO, DECRESCENDO (DIMINUENDO), OR BOTH.

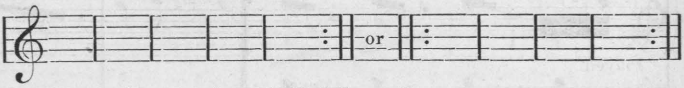
T.—Illustrate other signs!

P.—For increase or decrease of power, expressed by the words *crescendo* (pronounced creshendo) and *decrescendo*, we have the signs < >, used singly or together. These signs may be made long or short according to requirement.

T.—Explain the Repetition sign!

P.—All measures placed between double bar lines with the repetition sign (two dots) at the end, or both, at the beginning and end, must be repeated.

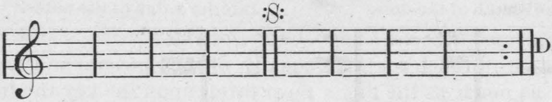
Ex. 77.



T.—What is the meaning of "Dal Segno".

P.—Dal Segno is used in connection with repetition from a certain sign, usually :𝄋:.

Ex. 78.



Dal Segno :𝄋:,

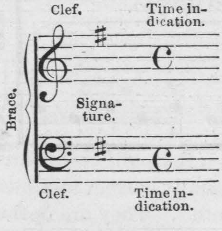
meaning: repeat from the sign :𝄋:.

T.—What is a Brace?

P.—A double curve connecting two staffs, when writing for the Piano, two voices, etc.

Manner of preparing to write for the Piano.

Ex. 79.



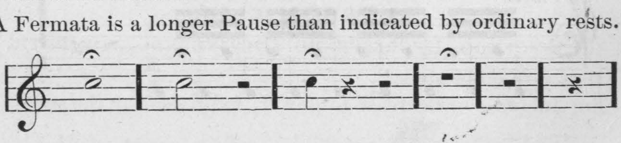
LESSON L.

Fermata or Pause, and Abreviation Signs.

T.—What is a Fermata?

P.—A Fermata is a longer Pause than indicated by ordinary rests.

Ex. 80.

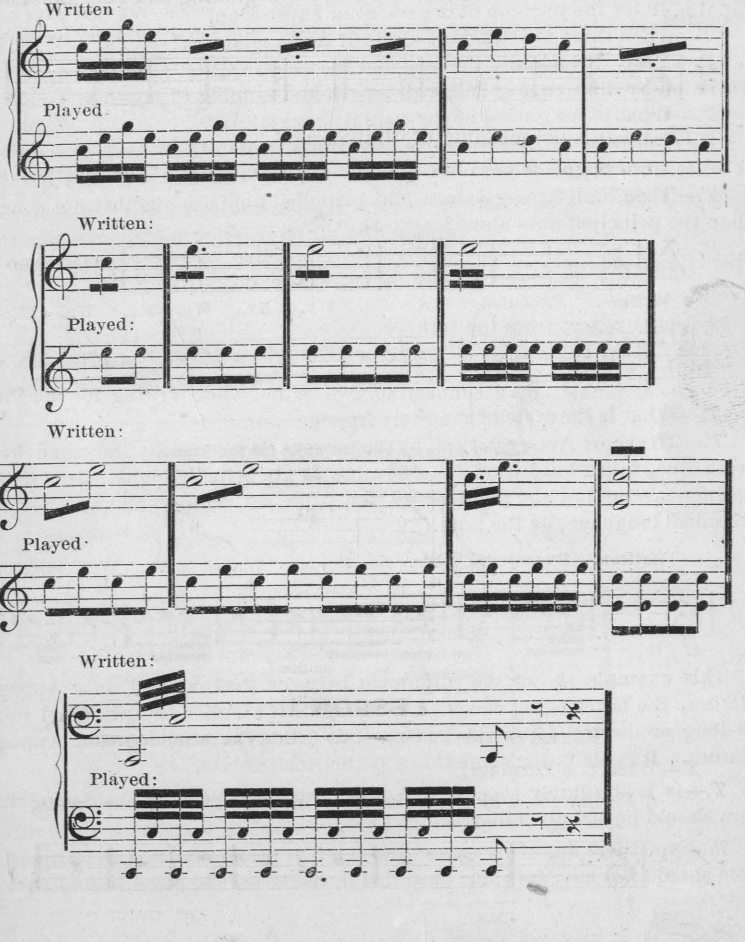


The Fermata should in preference be made to partake of the general rhythm, so as not to destroy the feeling of symmetry, even when a complete temporary rest has been attained.

T.—What abreviations are used in music?

P.—The following

Ex. 81.



LESSON LI.

ORNAMENTATION.

THE APPOGGIATURA.

T.—Explain the meaning of "Appogiatura."

P.—The term Appogiatura refers to one or more notes preceding a principal note for the purpose of ornament or expression.

T.—Then there are different kinds of Appoggiaturas?

P.—Yes! Principally the *long* and the *short*. They are both capable of variation by difference of interval, length and number of notes.

T.—What is the nature of the long Appoggiatura?

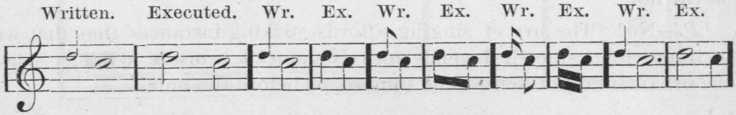
P.—It is principally expressive, and may vary in the time-length which it takes from the principal note.

T.—Then both Appoggiatura and principal note are together not longer than the principal note alone?

P.—No!

The long Appoggiatura, also called "changeable".

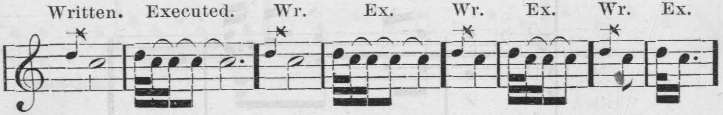
Ex 82.



T.—What is the style of the short Appoggiatura?

P.—The short Appoggiatura, at the present day generally indicated by a cross line, takes but little from the value of the principal note. It is *traditionally* executed at the point where the principal note commences, or, in technical language, *on* the note.

Ex. 83.



This example shows the difference between the long and short Appoggiatura, the latter being executed with rapidity whether the principal note be long or short. From this reason it is called the unchangeable Appoggiatura. It is about the same thing as the *Accacciatura*.

T.—Is it absolutely necessary that the *traditional* style of the Appoggiatura should be strictly adhered to?

P.—No, there are many cases in which it is preferable that the principal note should not have its value curtailed in the least. It often occurs that a melody should be given in its integrity of values (of notes), or that a single tone even may suffer in having it shortened as to value; in such a case no performer of good taste will blindly adhere to tradition, and place the ornamental note or notes *before* the point where the value of the principal tone commences.

T.—Then you think the execution of ornamental notes is principally a matter of taste and effect, with the sole object of making the execution as beautiful as possible?

P.—Yes! The greater number of distinguished players execute the short Appoggiatura according to what is most graceful and beautiful in each case.

T.—But would it not be better to adhere to some strict rule so that no misinterpretation may take place?

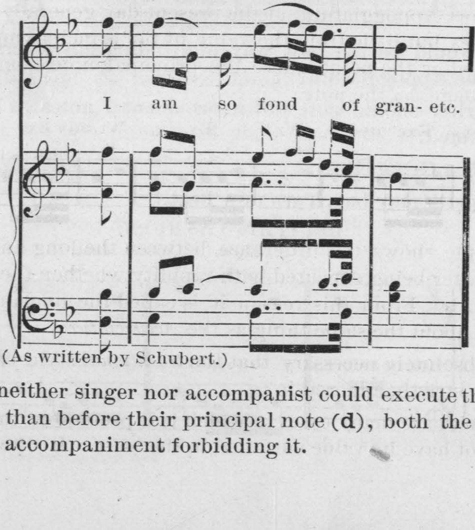
P.—Rigid rules are impossible in any art, and they are always established by those who do not understand its true nature.

T.—How is it in song? Must the Appoggiatura be executed in all cases *on* the note?

P.—No! The art of singing affords striking instances that that would be impossible, since it depends entirely upon the word or syllable, whether the ornamental notes are to be sung on or before the note.

Schubert from "The Pretty Miller's Daughter".

Ex. 84.

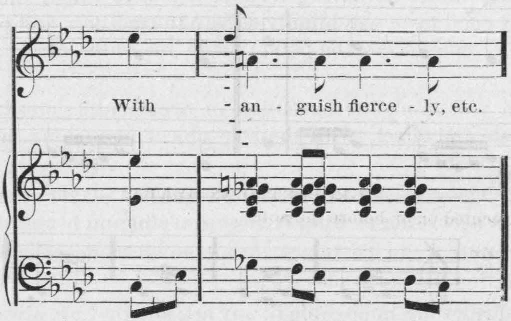


(As written by Schubert.)

In this case neither singer nor accompanist could execute the ornamental notes otherwise than before their principal note (d), both the word and the structure of the accompaniment forbidding it.

In the following example, on the other hand, the traditional style answers well:

Ex. 85.



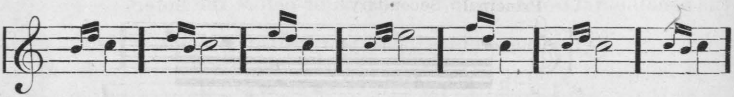
LESSON LII.

THE DOUBLE APPOGGIATURA; THE GRUPPETTO.

T. What is a Double Appoggiatura, and how is it executed?

P.—It consists of two notes and is always rapidly executed, either before or on the note, according to circumstances.

Ex. 86.



T.—What would be the best way of avoiding misunderstanding in the execution of the Appoggiatura?

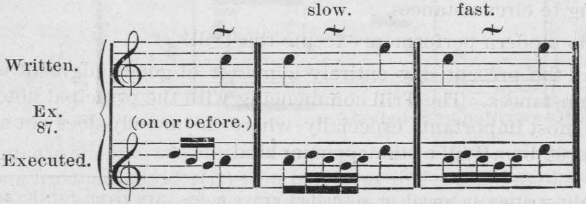
P.—The writer should note down ornamental notes as he designs they should be executed.

T.—What is a Gruppetto?

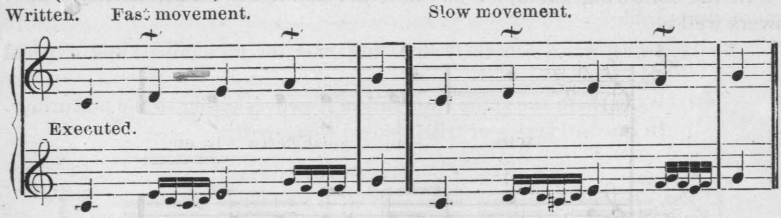
P.—A Grupetto may be a Turn or a Beat.

GRUPPETTO AS TURN.

Ex. 87.



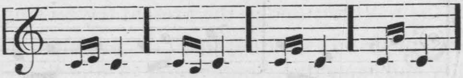
(Ex. 87 continued.)



GRUPPETTO AS BEAT.

Executed on or before the note.

Ex. 88.



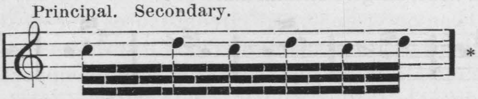
LESSON LIII.

THE TRILL.

T.—Of what does the Trill consist?

P.—Of a principal and a secondary note.

Ex. 89.



*

T.—How is it executed?

P.—Before Hummel, the principal founder of modern piano playing, the Trill was begun with the upper or secondary note, and this style is adhered to to the present day by a number of piano teachers, and by a still larger number of singing teachers.

T.—Is it incorrect?

P.—No; the Trill may be started either with the principal or secondary note, according to circumstances.

T.—How do modern performers execute the Trill?

P.—It is at the present day entirely a matter of good judgment under different circumstances. The Trill commencing with the principal note will always be the most important, especially where the melody does not admit of being obscured by a Trill of the opposite kind.

---

* Trills usually written in small or so-called grace notes, are given for the sake of perspicuity in the larger regular note.

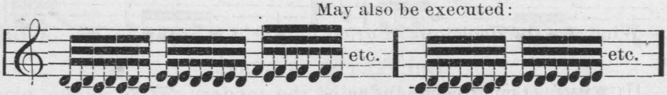
T.—Under what circumstances then is the Trill, beginning with the upper note, acceptable?

P.—1) In all cases where it does not *mar*, or go against, the musical thought.

2) When with the same reservation it proves easier to the performer.

3) In upward series of trills, called *chain-trills.*

Ex. 90.



T.—How is the trill executed at the present day in singing?

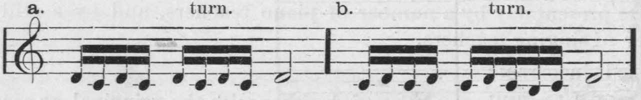
P.—The tendency is to execute it upon the principal note. It is partly a matter of ability and capacity. Some prefer to sing the trill upon the upper note, because they find it easier (some trills on the Piano are easier from the upper note), but those who are gifted with a natural trill, either instrumentally, or vocally, execute it almost invariably from the lower note.

T.—What is the actual comparative merit of these two trills?

P.—I. The trill upon the lower note is the best, because the most musical and rational. It accords more perfectly with the musical thought, and can never under any circumstances mar it. In the great majority of positions upon the Piano it is the easiest of the two.

II. The opposite trill, that beginning with the upper note, has an objectionable feature, which is that its *turn* (necessary at the end of most trills) consists of an even number of notes — 4 —, instead of 5, as in the case of the lower trill.

Ex. 91.

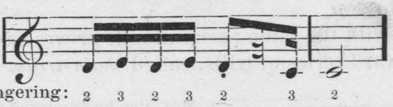


The turn at **a** is probably easier than the one at **b**, and rounds off the trill in perfect rhythm. The upper trill must however be so executed that the accent upon the secondary (upper) note is scarcely perceptible, showing that its only claim to existence is after all derived from the principal trill, unless the character of the melody note, upon which the secondary trill is executed, *demands* a firm accentuation of the upper note.

T.—How must a trill be ended?

P.—Generally with a turn, whether indicated or not. Exceptions are made in chain-trills, which may be given with or without turns, according to circumstances, convenience, and due regard to what is beautiful and effective. The great pianist Bülow makes occasional use of an effective and sprightly trill *ending* well adapted to certain older compositions:

Ex. 92.


German fingering:

T.—What are the decisions of great authorities in this matter of different trills?

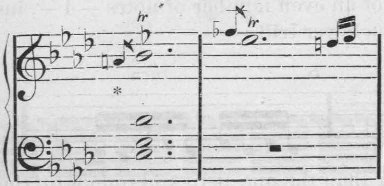
P.—HUMMEL (principal founder of the modern art of piano playing) says in his "Great Piano School", that the Trill should generally be commenced with the principal note (Hauptnote), and that in all cases where authors desire the opposite trill, proper indication should be made. MOSCHELES, LISZT and BUELOW give conclusive opinions to the same effect (See pp. 302—305, Vol. X, of Mendel's Conversations-Lexikon, Berlin, Robert Oppenheim) in their editions of the Piano works of Beethoven, Mozart, Weber and others.

T.—Can you give an authoritative example, showing 1) the manner in which the two opposite trills should be indicated, and 2) that great composers have actually adopted the rule laid down by HUMMEL.

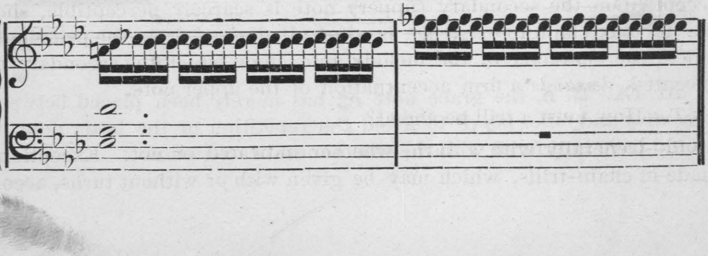
P.—Yes! I will take three from BEETHOVEN'S Sonatas, and one from CHOPIN.

a. SECONDARY TRILL, in Sonata Appassionato.

Ex. 93.

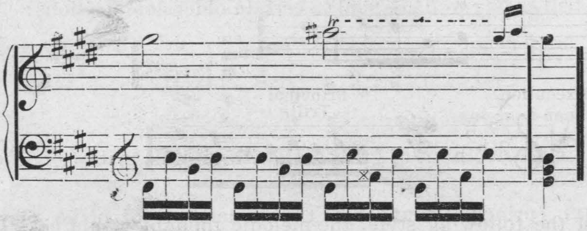


Executed:



(**Ex.** 93 continued.)

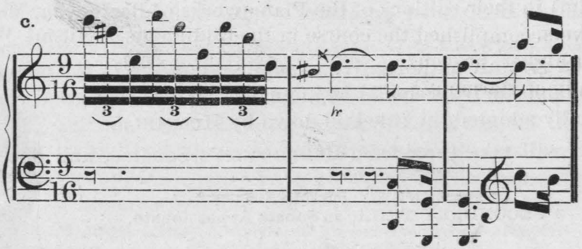
b. PRINCIPAL TRILL—Moonlight Sonata. Beethoven, op. 27.



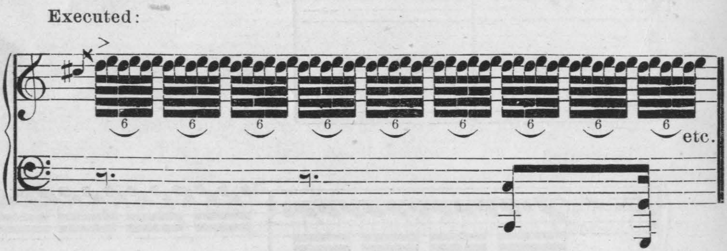
It sometime occurs that a composer writes a grace note introductory to a principal Trill, similar in appearance to that in Ex. 93 at **a** *.

Sonata, Beethoven—Arietta. Op. 111.

c.



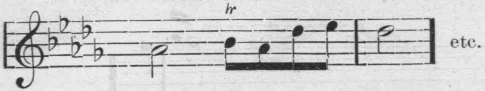
Executed:



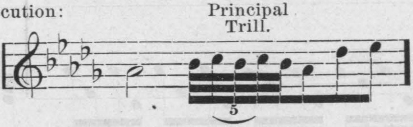
At Ex. 93, **c**, the grace note **c♯** has merely been placed between the *preceding* and *following* **d**ˢ to avoid the repetition of the latter note, which would have interfered with the smoothness of execution.

(Ex. 93 continued.)

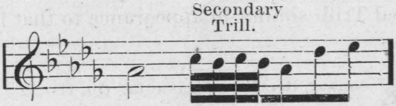
d. Fantasie Impromptu—Chopin, op. 66.



Execution:



Executed in the following style, the melodic thought would have been marred:



T.—You have accomplished the course in the Rudiments of Music! What will be the next higher branch?

P.—The Study of Harmony!

END OF PRIMER.

INDEX.

PAGE
Sound and Tone....Lesson I.. 5
Octaves and Tone Sections .... " II.. 6
Names of Tones.... " III.. 7
Names of Octaves.... " IV.. 7
Keyboard of the Piano.... " IV.. 8
The Diatonic Scale .... " V.. 9
The Chromatic Scale.... " VI..10
Interval, Whole Step and Half Step.... " VII..10
Musical Notation—Lines, Spaces and Staff.... " VIII..11
Clefs.... " IX..12
The Treble Notes upon the Lines and Spaces, also above and below the Lines.... " X..13
The Bass Notes upon the Lines and Spaces, likewise above and below the Lines.... " XI..13
Leger Lines.... " XII..14
The Octave Sign.... " XIII..15
Extension of Bass and Treble.... " XIV..16
The C Clefs.... " XV..17
Sharps and Flats.... " XVI..18
Double Sharps and Double Flats.... " XVII..19
White Keys as Principal and Derived Tones.... " XVIII..20
The Natural.... " XIX..21
Double Sharps and Flats made Natural.... " XX..22
Extent of Influence of the Sharp, Flat, Natural, Double Sharp and Double Flat.... " XXI..23
Extent of Influence of the Sharp, etc., continued.... " XXII..24
Keys or Tonalities.... " XXIII..25
Keys or Tonalities continued.... " XXIV..25
" " " " .... " XXV..27
" " " " .... " XXVI..28
Circle of Fifths.... " XXVII..29
The Scale.... " XXVIII..30
Major and Minor Scales.... " XXIX..30
Harmonic and Melodic or Vocal Minor Scales.... " XXX..31
The Relative Minor Scale, Key or Tonality.... " XXXI..33
Intervals. .... " XXXII..34
" continued.... " XXXIII..35
" " .... " XXXIV..36
Value of Notes and Rests.... " XXXV..36
Dotted Notes.... " XXXVI..38
Duals, Triplets, Sextolets, etc.... " XXXVII..40
Rest and Pauses.... " XXXVIII..41
Time, Measure, Accent—TIME.... " XXXIX..43
Time, Measure, Accent continued—MEASURE.... " XL..44
" " " " —TIME-ORDER.... " XLI..45
Time-Order continued.... " XLII..46
Time, Measure, Accent continued—ACCENT.... " XLIII..47
" " " concluded—MEASURE and ACCENT.... " XLIV..48
Time Beating.... " XLV..49
Initial Syncopation and Measure.... " XLVI..50
Different Signs—LEGATO.... " XLVII..51
Staccato.... " XLVIII..52
Crescendo, Decrescendo (Diminuendo), or both.... " XLIX..53
Fermata or Pause, and Abreviation Signs.... " L..54
Ornamentation—The Appoggiatura.... " LI..56
The Double Appoggiatura; the Gruppetto.... " LII..58
The Trill.... " LIII..59

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